DOCUMENT RESUME

ED 206 884 CE 030 005

TITLE	Final Report of Nursing Transition: A Process to Facilitate Career Mobility, July 1, 1980-June 30, 1981.
INSTITUTION	Brookdale Community Coll., Lincroft, N.J.
SPONS AGENCY	New Jersey State Dept. of Education, Trenton. Div. of Vocational Education.
PUB DATE	Jun 81
NOTE	184p.
EDRS PRICE	MF01/PC08 Plus Postage.
DESCRIPTORS	*Advanced Placement Programs; *Articulation (Education); Career Ladders; *Curriculum Development; Educational Planning; Equivalency Tests; Institutional Cooperation; *Nurses; *Nursing Education; Occupational Mobility; Program Content; *Transfer Programs; Two Year Colleges; Vocational Education
IDENTIFIERS	Brookdale Community College NJ

ABSTRACT

A program was developed to facilitate the transition of Licensed Practical Nurses (LPNs) into a program to become registered nurses (RNs) and acquire an associate degree in allied health at Brookdale Community College (New Jersey). A committee of four nursing faculty compared the curriculum of an exemplary practical nursing program with Brookdale's first-year courses and developed a three-phase process--Advanced Placement Seminar I, Advanced Placement Seminar II, and Nursing--to allow LPNs to enter the second year of the RN nursing education program. The content of the seminars built upon prior learning and filled in the identified gaps in the two levels of education. The science faculty developed two comparable seminars for the anatomy and physiology courses. A process was developed to enable the LPNs to earn credit by examination in these courses, which provides them with the strongest possible transcript if they wish to continue beyond the associate degree. Included in both nursing and science were class and college lab instruction and hospital practice and testing for the nursing component. At the completion of each phase, students were tested. Group and individual counseling sessions were held when indicated. The first enrollees in the program were enthusiastic about the program; it is expected that this new career mobility opportunity will enhance enrollment in the local vocational school for practical nursing and in the community college, where the transition program may be held more often. (Appendix B, which constitutes over half the document, contains unit outlines and performance check lists.) (KC)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED206884

FINAL REPORT

OF

NURSING TRANSITION: A PROCESS TO FACILITATE CAREER MOBILITY

1980-81

Brookdale Community College
Newman-Springs Road
Lincroft, New Jersey 07738
(201) 842-1900

Project Director
Marion A. Mulholland
Acting Director of Allied Health

CE 030 005

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

● Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

L. F. Price

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

This project reported herein was conducted pursuant to a contract from the New Jersey Department of Education, Division of Vocational Education and Career Preparation. It was funded under Section 133 of Public Law 94-482.

Project Duration: July 1, 1980
Beginning Date

June 30, 1981
Ending Date

The Contractors undertaking this project were encouraged to express fully their judgments in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official funding agency positions or policies.

OFFICIAL USE ONLY

IDENTIFICATION NO. SDG 136

AMOUNT FUNDED $12,400.

FUNDED UNDER SECTION 133 OF P. L. 94-482

PROJECT TITLE: NURSING TRANSITION: A PROCESS TO FACILITATE CAREER MOBILITY

LEGAL NAME OF APPLICANT DISTRICT, INSTITUTION OR AGENCY: BROOKDALE COMMUNITY COLLEGE

ADDRESS: NEWMAN-SPRINGS ROAD
LINCROFT, NEW JERSEY 07738

PROJECT DIRECTOR: Marion A. Mulholland-Acting Director of Allied Health

TELEPHONE NUMBER: 201 842-1900
(Area Code)

ABSTRACT

DESCRIPTION OF PROJECT

We in Brookdale's nursing education department feel that career mobility among all levels of nursing education is vitally important. Many professional and societal pressures exist which accent the need for higher levels of education. More education enhances nursing practice which benefits the nurse, the profession and, especially, the Community.

Options for pursuing these higher levels of education should be available in every area of the state. Providing these educational opportunities is the responsibility of nursing educators who need to develop quality programs suited to these professional needs.

Our objective was to meet this need for LPNs in our area by developing a sound educational process, which facilitated their entry into the second year of RN nursing education.

A Committee of four nursing faculty compared the curriculum of an exemplary practical nursing program with our first year's courses and developed a three phase process, Advanced Placement Seminar I, Advanced Placement Seminar II and Nursing Transition, to facilitate career mobility. The content of the seminars built upon prior learning and filled in the identified gaps in the two levels of education

The science faculty developed two comparable seminars for the Anatomy & Physiology courses.

We recognized both the constraints placed on awarding transfer credit to non-collegiate courses and the interest of some LPNs to earn more than the Associate Degree in Nursing.

Therefore, we developed a process enabling them to earn credit by examination in these courses which provides them with the strongest possible transcripts.

Included in both nursing and science were class and college lab instruction and hospital practice and testing for the nursing component. At the completion of each phase, students were tested. Group and individual counseling sessions were held wehn indicated.

We expect this new career mobility opportunity to enhance enrollment in the local vocational school for practical nursing. They will be able to discuss with potential students the total career possibilities available to their graduates.

TABLE OF CONTENTS

PAGE

A Introducation

1. Problem 5
2. Objectives 6
3. Related Research or Background Information 7

B Body of Report

1. Procedures used 9
2. Findings 13
3. Interpretation of Findings 14
4. Evaluation 15
5. Dissemination Activities Planned and/or Implemented 16
6. Strategies or Activities Employed to Eliminate Sex Bias and Sex Role Sterotyping 16

C Summary

1. Conclusions 17
2. Recommendations 18

D SUPPLEMENTARY PAGES

1. Appendix A - Evaluations

2. Appendix B - Contents of Advanced Placement Process

3. Appendix C - Brochure

A.

INTRODUCTION

INTRODUCTION

I. PROBLEM:

There is a movement within nursing to consolidate the present educational structure for entry level into practice to baccalaureate and associate degree programs. This move could eliminate both diploma granting and vocational practical nursing schools and is pressuring nurses who have graduated from these programs to improve their educational preparation. Already some hospitals are attempting to staff only with Registered Nurses for primary care nursing. In addition, societal expectations for upward mobility add to the real need of many Licensed Practical Nurses to achieve the Registered Nurse level. Currently, in Monmouth County the Licensed Practical Nurse is not able to continue education for Registered Nurse licensure without repeating previously learned material. Our existing program is available to meet this need and we at Brookdale Community College are interested in providing the educational opportunity to bridge the gap between Licensed Practical Nurse and Registered Nurse levels of practice.

IV. OBJECTIVES:

1. Identify significant differences between the Licensed Practical Nurse program at Monmouth County Vocational School and the ADRN program at Brookdale Community College.

2. Develop a 6-7 week transition course for Licensed Practical Nurses which will facilitate role change, increase knowledge, refine skills and develop professional attitudes comparable to ADRN students beginning their second level of nursing education.

3. Devise a system for monitoring student progress through the course.

4. Develop counselling and support services for applicants and enrolled students.

II. RESEARCH:

Continued discussions with local nurses accent the need for a career mobility program for vocationally trained Licensed Practical Nurses. They frequently contact our office for details of our present program and their possible alternatives. Dismay and anger are expressed at the lack of recognition of their educational preparation. Each of our classes has some Licensed Practical Nurses who are so motivated to become Registered Nurses that they will repeat and go through our entire program. However, most are employed and their income is a necessary part of their family maintenance; they cannot manage two more years of school and stay in the job market.

The supervisor of Practical Nursing Education at Monmouth County Vocational School is a strong advocate of this educational opportunity. She has recognized the blocks in the way of Licensed Practical Nurses advancement in our area and has been encouraging the development of a career mobility program. A copy of a statement endorsing the need for and encouragement of a career mobility opportunity is included in the appendix, item #1.

Other states have developed successful career mobility systems for Licensed Practical Nurses. In April, project director attended a three day national conference for nursing educators interested in and involved with career mobility programs. Over 200 participated. There was a total agreement as to the need to improve articulation at every level of nursing education and many theoretical ideas and practical suggestions for implementing programs were discussed. Although there seems to be many different systems of facilitating articulation, a common core is a transition course. Each course differs due to various philosophies, objectives and established programs within the existing institutions, but the common guide is to identify programs differences and then design a specific course to facilitate role change and fill the differences.

In New Jersey, only one other community college is offering anything similar. Somerset County College's three year old career mobility opportunity has a broad structure similar to what we plan to develop. However, their program objectives and methods of meeting the identified differences are different from our plan. They rely heavily on rented modular Anatomy and Physiology units rather than faculty developed units of instruction. Their first level courses are structured differently and so we cannot incorporate their new program into ours. Their overall plan seems to fit New Jersey's needs, but the details are too dissimilar.

Mercer County Community College has a completely modular curriculum into which their planned Licensed Practical Nurse articulation program will fit. However, it is designed as two additional years of study for a Licensed Practical Nurse, so really offers little in time saving. Perth Amboy Hospital offers a special track for Licensed Practical Nurses who would graduate as diploma school Registered Nurses after a 17 month program. With the movement toward phasing out diploma schools and the current admission difficulties they encounter pursuing Baccalaureate education, it seems wiser not to push this route for Licensed Practical Nurses.

As far back as 1970, the National League for Nursing published its approval of The Open Curriculum in Nursing Education to encourage career mobility. A copy of their statement is included in the Appendix, item 2. In the 10 years since then, little has been done in New Jersey to implement their recommendation.

The motivation of Licensed Practical Nurses wanting to further their education is well known, but historically, they have experienced much frustration trying to formally increase their professional knowledge. It has been very costly both in time and money for them. Carrie Lenbery and Walter Johnson in an article written back in 1974(1) discussed the National League for Nursing's involvement in furthering educational opportunities. A pilot project had been initiated to encourage development of program, increasing articulation between levels of nursing education. These authors described the basic progress made to that date with National League for Nursing's backing and emphasized the need for expansion of the limited advances made to that time.

Another Nursing Educator, Ruth Wu, studied the issue of granting credit for previous learning. She compared the difficulties experienced by both Licensed Practical Nurses and Registered Nurses without a bachelors degree, in advancing through education. One school found that transfer of credit, from program to program, and after a careful review of program content, is the fairest mechanism. She presents an argument for easing the barriers placed in front of students.(2)

---

(1) Lenbery, Carrie, and Johnson, Walter, "Career Mobility Through Nursing Education", Nursing Outlook, April 1974.

(2) Wu, Ruth, R.N./Ph.D, "Granting Credit for Previous Learning". Nursing Outlook, 11/78.pp 707-712.

B.

BODY OF REPORT

a. General Design

Procedures for Objective #1: "Identify significant differences between the Licensed Practical Nurse program at Monmouth County Vocational School and the ADRN program at Brookdale Community College.

(a) Review philosophy and curriculum from a representative Licensed Practical Nurse school in New Jersey.

We will compare the Monmouth County Vocational School philosophy with Brookdale Community College philosophy and also compare the objectives with those of the first year at Brookdale Community College.

A philosophy will be prepared which will allow flexibility in the way prerequisites can be met.

(b) Review texts and supplementary materials from the Licensed Practical Nurse program.

All materials used in the Licensed Practical Nurse program will be reviewed with the aim of selection of material for the bridge program. Those to be built on and new learning to be included will be identified,

(c) Identify abilities and focus of practice of a graduate of that program.

We will list the responsibility and performance characteristics ascribed to the Licensed Practical Nurse graduate.

(d) Identify ADRN students' abilities and focus of practice at the beginning of the second level.

We will evaluate practical nursing education in terms of its equivalence to that required for the associate degree. The level of competency attained by the student through previous learning and experience will be evaluated.

(e) Identify the significant differences in scientific knowledge, nursing theory, skill ability, application of theory and focus of practice.

A comparison list will be prepared and from that list we will distinguish between the two levels of nursing practice. Identification of these differences will enable course development for smooth articulation between these two educational programs. A course to allow each student to reach his fullest potential with a maximum of personal satisfaction will be prepared. Behavioral objectives that can be met in more than one way and independent learning opportunities allowing students to proceed at their own pace will be developed. An overall structure will be provided.

(f) Formulate philosophy and course objectives.

From our identified differences and knowledge of the total program, we will clearly state the philosophy and objectives for this course.

Procedures for Objective #2: Develop a 6-7 week bridge course for Licensed Practical Nurses which will increase knowledge, refine skills and develop professional attitudes comparable to ADRN students beginning their second level of nursing education.

(a) Develop units of instruction for this course.

The significant differences between Licensed Practical Nurse and ADRN education in the areas of scientific knowledge, nursing theory, skill ability, application of theory and focus of practice will be reviewed closely. Based on this review, critical information to be included in the bridge course will be determined.

(b) Plan learning experiences.

All learning experiences, such as A-V materials, handouts and reading assignments that have been in use at the nursing department of Brookdale Community College will be reviewed. Materials will be selected on the basis of their relevance to the course objectives.

(c) Select and develop Learning Packages for each unit.

Review Learning Packages currently being utilized in the ADRN program at Brookdale Community College. Select Learning Packages deemed appropriate for use in the bridge course. Design new Learning Packages to add to the existing collection.

(d) Plan college lab requirements.

All nursing skills to be mastered upon completion of the course will be identified and students will be provided with Critical Requirement check lists for each. A-V materials available already will be used as reinforcement by students. Demonstrations of these skills will be planned. Practice sessions will be arranged and an alotted time span for mastery of skills will be decided upon.

(e) Plan clinical experiences.

Information to be included in the course will be reviewed for the purpose of determining specific hospital experiences which will complement the theoretical areas to be studied. Hospitals in the Monmouth County area will be surveyed and selected for use based on their ability to meet the needs of the course. Faculty will meet with hospital officials for the purpose of designating specific units to be used for clinical learning experiences. Faculty will also meet with the nursing staff for the purpose of acquainting the staff with the [illegible]se objectives and explaining the nature of the clinical experience.

(f) Coordinate all units into an integrated course of approximately 6-8 weeks.

Units of instruction will be re-examined in order to decide upon a logical progression of the course content. Course content will have to be prioritized. Time constraints will be decided upon for each unit of instruction so that the entire course fits comfortably into the alloted span.

Procedures for Objective #3: "Devise a system for monitoring student progress."

(a) Prepare quizzes for sub-units of instruction.

Based on the curriculum, short quizzes will be developed. The number and timing of quizzes for maximum student benefit will be decided.

(b) Summative tests for both class units will be developed.

Critical content for evaluation will be identified in the course objectives and test items will reflect this content. The best testing method to meet each objective will be determined. Test questions will be jointly prepared by the faculty. Grading practice and retesting will follow Brookdale Community College's policies. Appropriate time intervals for testing and any necessary retesting will be determined.

(c) Evaluations of students' performance of nursing skills will be planned.

Critical requirement check lists already exist at Brookdale Community College for each nursing skill a student is expected to master. Those selected as necessary inclusions in this course will be used to determine the students' competence. The sequence and timing will be determined along with the parameters for additional student practice and retesting, if necessary.

(d) Clinical evaluation criteria will be developed from existing course level criteria.

Evaluations currently used to evaluate our students' performance in the clinical will be reviewed and modified to meet the objectives and consolidated clinical experiences of this course.

(e) Criteria for monitoring total course progress will be developed.

We will determine a basis for referral of students experiencing difficulties with the course. The existing nursing department grading policies will be followed. A weighting system for grades received by students in the various assessments of their progress will be determined, along with minimal course requirements of class and clinical attendance.

Procedures for Objective #4: "Develop counselling and support services for applicants and enrolled students."

(a) Identify the special needs of students enrolling in this intensive course.

Our faculty will attempt to identify and anticipate the special needs and the stresses students will experience by consulting other faculty already implementing similar programs. A search of the literature will also be conducted and Licensed Practical Nurses in our generic program will be asked for their suggestions.

(b) Orient all Brookdale Community College Student Development Specialists involved in pre-admission and on-going counselling.

We will arrange meetings between the faculty and Student Development Specialists (counsellors) to discuss the philosophy, objectives, admission requirements, course expectations and identified special needs of students enrolled in this bridge course.

(c) Plan course orientation for students.

Course packets will be prepared for distribution to students prior to beginning course. Time and energy demands on them will be fully discussed.

(d) Set up a system for immediate referral and counselling for any student experiencing difficulty with the course.

The assessments used in monitoring progress will be structured for automatic referral to faculty or Student Development Specialists if necessary. Faculty availability to students outside of class time will be planned into the course schedule.

(e) Develop mechanisms for student feedback and student evaluations of this course.

Student perceptions of their own progress and adjustment rate will be collected weekly. Keeping a diary will be encouraged. We will modify existing first level class and clinical evaluations to suit this particular course. They will be included in the course packet and then collected anonymously at the course completion.

FINDINGS:

We developed several different approaches during the year before finally deciding on the three phase, Credit by Examination and Nursing Transition course, process.

Analyzing the practical nursing curriculum wasn't as simple as planned. Their units weren't as clearly delineated nor did they include specific objectives. However, we gained a strong impression of their curriculum from this and then discussed it in detail with the Director of their program. We were then comfortable with the content needing to be included in some kind of a transition course.

Initially, we planned to offer a certain number of credits for LPN education and develop one course covering the identified gaps. However, it soon became apparent that awarding transfer credit to non-college courses was very complicated and was evan considered educationally unsound. Also, one transition course would carry about eight credits which is far more than other similarly titled courses carry. Our consultants recommended restudying the purpose of this process and to keep it as simple as possible.

We then decided not to award any transfer credit but expand and improve our existing advanced placement process. Credit by Examination could only be earned in the first nursing course and not in either the second nursing course or in Anatomy & Physiology. We rearranged the content already chosen for the original course into two seminars corresponding to our first year nursing courses and a one credit Nursing Transition Course. The same was done for A&P. Content included instruction in class and college lab, clinical experiences and testing were part of the second seminar and Nursing Transition Course.

The curriculum developed for each phase was an adaptation of our basic curriculum. It covered all the important areas necessary for these students to have the same mastery of content as our regular students. Demonstration and Instruction in nursing skills were included.

These seminars and the course were offered during the six week Spring semester and students were able to earn up to 22 credits. The breakdown is:

NUR 121	6	Credits by Examination
NUR 122	7	" " "
BIO 111	4	" " "
BIO 112	4	" " "
Nursing Transition	1	Credit

INTERPRETATION:

Over 70 LPNs applied for this pilot program. Twenty-three met the admission criteria, which is identical to that for our regular students (with the additional requirement of PN licensure). One additional student was only eligible to challenge the first nursing course and enrolled in that Seminar.

Nineteen of those selected completed all the objectives and will be integrated into our second year students. They will not be kept on a seperate track. Two of the four not completing will go into the second course on the first level, while two dropped completely.

We feel the selection procedures enabled strongly motivated, capable nurses to be admitted into the program. We will continue with this procedure for next year's group.

The curriculum covered in the seminars seemed to meet our goals of having students master comparable objectives as our generic students.

The new focus on this process has shifted our initial terminology from 'Nursing Transition' to 'Advanced Placement'.

EVALUATION PROCEDURES

A) EXTERNAL EVALUATION:

1. Consultant from Somerset County College reviewed our entire curriculum and reported both to Brookdale and the New Jersey Board of Nursing. (letter attached)
   Appendix A
2. The New Jersey Board of Nursing independently reviewed all materials developed, suggested revisions and subsequently approved the addition of this avenue of entry into our program (letter attached)
   Appendix A
3. A consultation meeting with the National League for Nursing about the curriculum and total packet we developed reinforced our own feeling that we should expand and improve our existing, limited advanced placement process rather than develop a complicated new entry process. This is similar to the combination of seminars and Nursing Transition Course we did implement.

B) INTERNAL EVALUATION:

1. Evaluation of Students:

   a. Faculty monitoring of each student's progress through the phases of the Anatomy & Phisiology process was done in class and small group sessions.

   b. Grades and College Lab and clinical ratings are being compiled for each student.
   Appendix A

   c. Success in the last two nursing courses, as measured by class grades and clinical ratings, will be monitored for each student.

   d. State Board scores will be evaluated.

   e. Job placement is probably not going to be part of the evaluative process as all of our graduates are quickly employed. In addition, most of these LPNs are already employed and have a position as an R.N. guaranteed by their current employer.

2. Evaluation by Students:

   a. Student evaluations were obtained and reviewed by staff. Student's suggestions about scheduling more demonstration and practice time in the college lab prior to testing will be incorporated into next year's plan. More small group sessions will be scheduled as they recommend.

   b. Additional time needs to be alloted to materninty nursing content.

   c. Their recommendation that applicants be more strongly advised to take all the supporting courses prior to enrolling.

   d. Students will be given another questionnaire at the completion of the entire program to gather their impressions and suggestions. We will try to determine if this educational route not only improved their skills and abilities but also engendered a real attitude change for practicing on the R.N. level.

DISSEMINATION ACTIVITIES

Discussions about this Advanced Placement process have been held at the statewide Associate Degree Nursing Council meetings. Already several other Directors of Nursing have indicated their programs are considering similar programs. The popularity of this educational opportunity is serving as an impetus to them.

With each program's curriculum developed differently, with varying philosophies, placement of content, etc., just taking a curriculum and superimposing it on another is impossible. However, broad policies can serve as a guide to others developing programs.

Any requests for information will be answered.

SEX BIAS:

Brookdale Community College and the nursing Department have no sex bias in admitting students. Nursing is traditionally a female occupation; however, male applicants are encouraged. Admission criteria is, and will continue to be, applied equally to any applicant. Program objectives are identical for every student.

Recruitment materials depict a wide variety of students to help potential students relate to those currently enrolled.

Statistically, there are fewer male LPNs than R.N.s so the pool of potential male students for Advanced Placement is small. However, in this first group one male LPN successfully earned credit by examination in all four courses and is enrolled in our second year.

SUMMARY

Conclusions:

The first group of LPNs who successfully completed this Advanced Placement process have been extremely enthusiastic. They strongly recommend continuing to offer this opportunity to others.

All our feedback indicates positive response. Administration has continued to be supportive and all plans are to offer this annually. If the demand continues and if clinical spaces and financial flexibility continue, we may expand it. Perhaps we could offer it twice annually, or admit a larger group once a year.

RECOMMENDATIONS

AREAS TO BE MODIFIED:

1. College lab demonstration and required practice of nursing skills prior to testing.
2. Scheduled counseling sessions.
3. Maternity nursing content
4. For some, too intensive combination of nursing and Anatomy and Physiology.

APPENDIX A

SOMERSET COUNTY COLLEGE

P O BOX 3300 • SOMERVILLE, NEW JERSEY 08876

June 1, 1981

Telephone
(201) 526-1200

Dr. Dorothy J. DeMaio, President
New Jersey Board of Nursing
1100 Raymond Boulevard
Newark, N.J. 07102

Dear Dr. DeMaio:

As per your request regarding validation of the proposed Nursing Transition Course at Brookdale Community College, Lincroft, N.J., I have met with Ms. Marion Mulholland, Acting Director of Nursing and Allied Health, and have reviewed the enclosed materials.

I understand the Transition Course the Board originally discussed has been divided into a three part offering of two seminars and a Nursing Transition Course. The seminars are provided with optional attendance to assist the student to successfully challenge courses Nur 121 and 122, and proceed to Nursing Transition. All three offerings are to be conducted utilizing the learning objectives and learning experiences in the credit by Examination Packets.

Based upon this review and my experience as coordinator of the PN-AD Ladder Project at Somerset County College, I feel the program is workable, and the course contents relate directly to the purposes of Advanced Placement at Brookdale Community College.

If the student must take anatomy and physiology, her/his class day would be from 9AM-3:30PM four days a week, with a required 4-5PM class three times. The class day at Somerset has similar hours and has proved quite successful.

The only suggestion I would offer for consideration would be to make Advanced Placement Seminar II a mandatory part of the program. The Seminar contains skills such as parenteral medications, intravenous therapy, and dressings which we have found in our experience need to be reviewed.

I hope this consultation will assist the Board in its decision regarding Basic Transition Course at Brookdale Community College.

Sincerely,

Joanne N. Sergeant, R.N., M.Ed.
Assistant Professor
Somerset County College

JS/m
cc: Ms. M. Mulholland

State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF CONSUMER AFFAIRS
BOARD OF NURSING
1100 RAYMOND BOULEVARD NEWARK, NEW JERSEY 07102

JAMES R. ZAZZALI
ATTORNEY GENERAL

ADAM K. LEVIN
DIRECTOR

July 1, 1981

Ms. Marion A. Mulholland
Acting Director of Allied Health
Brookdale Community College
Newman Springs Road
Lincroft, New Jersey 07738

Dear Ms. Mulholland:

This will confirm in writing our recent telephone conversation.

At its meeting on June 16, 1981, the members of the Board of Nursing reviewed the materials which you submitted. After discussion, the Board approved of the LPN → RN program with the stipulation that the Advanced Placement Seminar II be a mandatory part of the program.

We wish you success in this venture.

Very truly yours,

Marianna Bacigalupo

Marianna Bacigalupo
Executive Secretary

MB:tsp

New Jersey Is An Equal Opportunity Employer

APPENDIX B

NUR 121

CREDIT BY EXAMINATION

PACKET

8 27

BROOKDALE COMMUNITY COLLEGE

NUR 121 CREDIT BY EXAMINATION PACKET

This packet contains the course outline for NUR 121 which you are requesting to challenge.

Look over every part. You may use the fundamentals text required in the course or any basic fundamental text to review the material. Various types of audio-visual materials are used and are highly recommended for your review. They are listed under SF or LP, Recommended Learning Experiences.

The theory part of the examination is taken first. See enclosed outline. After successful completion of the written examination you are scheduled for the practical exam in the college. See enclosed College Laboratory Evaluation outline and list of NUR 121 skills. You are welcome to schedule practice sessions in our College Lab prior to testing.

Each step takes time to schedule and evaluate, so please make your first appointment as soon as possible.

9

BROOKDALE COMMUNITY COLLEGE
Nursing Program

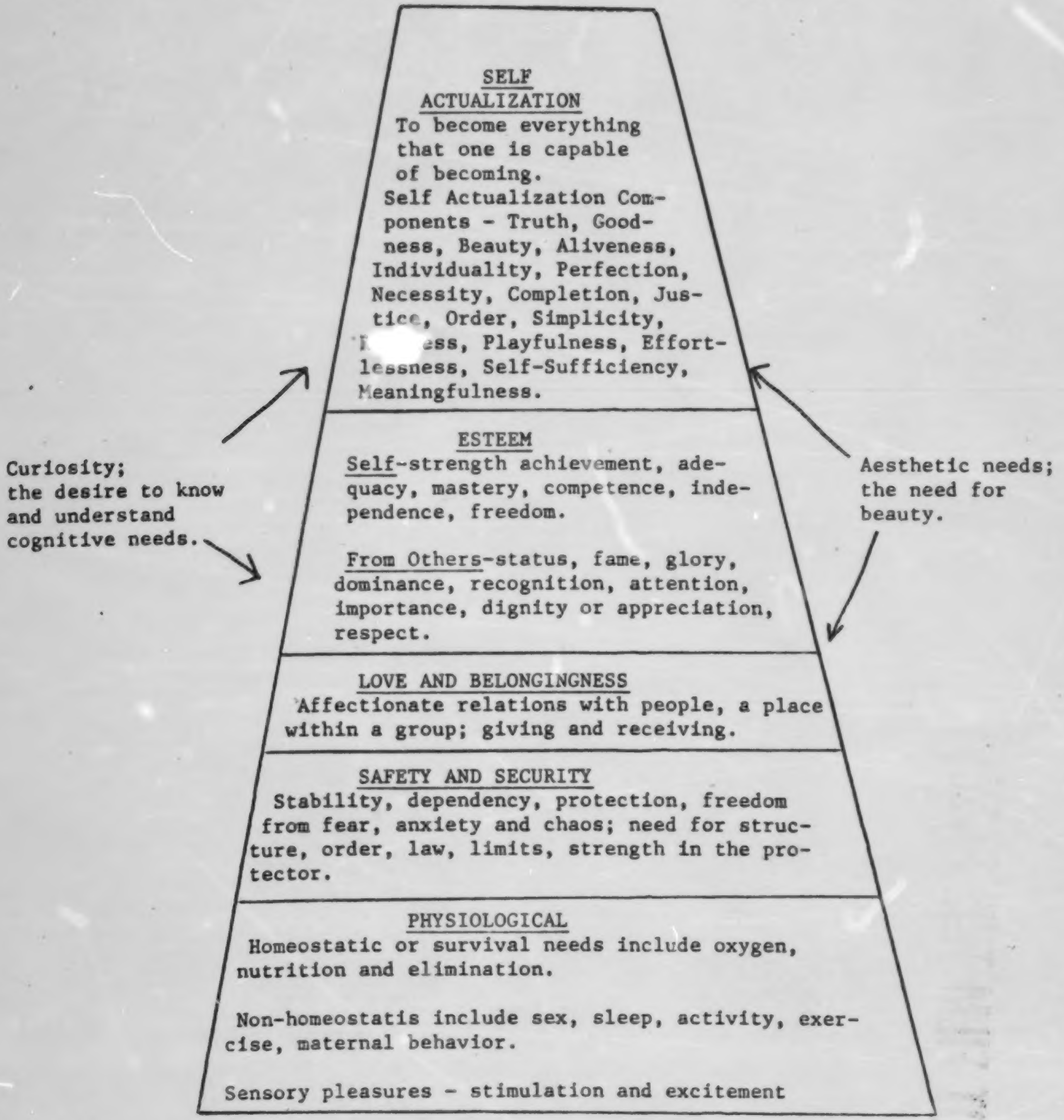
Program Objectives

The graduate of the program leading to the A.A.S. in Nursing, as a member of the interdisciplinary health team, functioning in a structured care setting with the guidance of a nurse possessing broader educational preparation and/or experience will:

1. Use the nursing process to formulate, implement, and evaluate patient care plans for individuals experiencing common problems of need satisfaction.
2. Use the hierarchy of basic human needs as a framework to help determine an individual's health status, health care requirements, and nursing priorities.
3. Demonstrate the ability to apply principles and facts from the social, behavioral, natural, and biologic sciences that are applicable to nursing.
4. Recognize that individual, socio-cultural, and developmental differences exist among people, and consider these differences in planning and implementing nursing care.
5. Demonstrate competence in the performance of associate level nursing approaches designed to help promote and maintain need satisfaction.
6. Recognize and practice within the limits and scope of practice for an Associate Degree Nurse as described in the NLN CADP (National League for Nursing, Council of Associate Degree Programs) competency statements.
7. Use communication skills effectively in relationships with patients, families, and other health team members.
8. Demonstrate continuing personal growth and occupational competence.

BROOKDALE COMMUNITY COLLEGE
NURSING PROGRAM
Definition of Terms

1. **Basic human needs:** As described by Abraham H. Maslow, the physiological and psychosocial bases of human motivation and personality which are species - wide, apparently unchanging and genetic or instinctual in origin. Needs are organized into a hierarchy of relative prepotency as diagramed and defined below:



SELF ACTUALIZATION
To become everything that one is capable of becoming.
Self Actualization Components - Truth, Goodness, Beauty, Aliveness, Individuality, Perfection, Necessity, Completion, Justice, Order, Simplicity, [illegible]ess, Playfulness, Effortlessness, Self-Sufficiency, Meaningfulness.

ESTEEM
Self-strength achievement, adequacy, mastery, competence, independence, freedom.

From Others-status, fame, glory, dominance, recognition, attention, importance, dignity or appreciation, respect.

LOVE AND BELONGINGNESS
Affectionate relations with people, a place within a group; giving and receiving.

SAFETY AND SECURITY
Stability, dependency, protection, freedom from fear, anxiety and chaos; need for structure, order, law, limits, strength in the protector.

PHYSIOLOGICAL
Homeostatic or survival needs include oxygen, nutrition and elimination.

Non-homeostatis include sex, sleep, activity, exercise, maternal behavior.

Sensory pleasures - stimulation and excitement

Curiosity; the desire to know and understand cognitive needs.

Aesthetic needs; the need for beauty.

The External Environment Preconditions for Need Satisfaction Freedom, Justice, Orderliness, Challenge.

2. Need:

   a. "A requirement of a person, which if supplied, relieves or diminishes his immediate distress or improves his immediate sense of adequacy and well being."

   b. "Characteristics of a need"
      1. inadequate satisfaction of needs predisposes to illness
      2. adequate satisfaction of needs prevents illness
      3. restoration of need satisfaction cures illness
      4. under free choice situations, it is preferred by the deprived person over other satisfactions
      5. it is found to be inactive, at a low ebb, or functionally absent in the healthy person
      6. adequate fullfillment of needs as the base of the hierarchy allows for the emergence of higher needs. (see attached list of needs)

3. Processes of Need Satisfaction - Physiologic and psycho-social mechanisms that function as the means to need satisfaction. (see attached list of processes)

4. Challenge - an influence or stimulus, internal or external, which impinges on the needs of the individual, and requires physiologic and psychosocial adjustments to maintain need satisfaction.

5. Non-threatening Challenge - a challenge with which the individual is able to cope effectively, making the necessary physiologic and psychosocial adjustments required to maintain need satisfaction and growth.

6. Threatening Challenges - a challenge for which the individual lacks the coping resources to make the physiologic and psychosocial adjustments required to maintain need satisfaction, and therefore perceives as threatening to his basic needs, goals, and values.

   Criteria for health related challenges and examples follow.

   Criteria for Challenges

   a. Challenges may be physiologic, psychologic, socio-cultural, environmental, physical, chemical, microbiological or developmental in origin. Multiple factors or sequences may constitute a challenge.

   b. Challenges include any unusual occurance, or unfamiliar or changing situation experienced by the individual - for example:
      1. hospitalization
      2. health care equipment or appliances (eg. Foley catheter)
      3. a new job
      4. moving to a new location
      5. diagnostic tests

   c. Challenges include the etiology, pathophysiology, and/or psychopathology of a disease; i.e. the manner in which the processes of need satisfaction are affected by a particular disease.

12

d. Challenges include medical treatment (eg. bed rest, dietary restrictions, medications, and surgery-including the altered anatomy and physiology that may accompany a surgical procedure).

e. Challenges include the demands of physical and psychosocial changes associated with growth and development. (eg. developmental tasks as in adolescence)

7. Problem of Need Satisfaction - An area of excess or deficit in need satisfaction which occurs in response to a threatening challenge; changes in function or losses of function that accompany threatening challenges to needs; a component of the nursing diagnosis; a problem aminable to nursing approaches.

Criteria for problems of need satisfaction, and some examples follow:

Criteria for Problems of Need Satisfaction

a. Problems include effective responses to a challenge (eg. denial, anger, withdrawal).

b. Problems may include general concept labels that describe the individuals physiologic or psychosocial responses to a particular challenge and that tend to lead to a clustering of effects. (eg. hypoxia, ischemia, nutrient deficiency, fluid deficit, fluid excess, overweight).

c. Problems include coping deficits related to the individuals capability for self care in maintaining need satisfaction (eg. lack of sufficient strength to bathe self).

d. Problems include coping deficits related to the individuals adjustment and ability to follow the medical regime (eg. lack of knowledge regarding Na restricted diet)

13

Examples: Problems of Need Satisfaction

Oxygen
- hypoxia
- shock
  - ischemia
- -respiratory dysfunction
- alteration in cardiac output

Nutrition
- malnutrition
- nausea
- vomiting
- nutrient deficiency
- overweight
- under-weight
- fluid/electrolyte imbalances

Temperature Regulation
- fever
- hypothermia

Elimination
- constipation
- diarrhea
- incontinence
- urinary retention
- malodorous perspiration
- impaired regulatory function of skin
- impaction

Activity and Rest
- pain/discomfort
- fatigue
- immobility
- -lack of skill in self care
- -lack of strength
- -lack of endurance
- -impaired physical mobility
- -gross motor incoordination
- -fine motor incoordination
- -altered ability to perform ADL
- impaired sleep-rest patterns

Sexual Role
- altered
- self determination
- impaired parenting

Safety and Security
- sensory deprivation
- sensory overload
- confusion
- disorientation
- fear
- anxiety
- -lack of adequate economic resources
- -sensory impairment

Safety and Security, continued
- susceptibility to hazards
- susceptibility to infection

Love, Belonging
- isolation - aloneness
- lonliness
- impaired socialization
- impaired communication
- inadequate family support
- impairment of significant other
- adjustment to illness
- impaired parenting

Esteem
- impaired adjustment to altered body image
- impaired processes of grieving
- role alteration
- life style alteration
- lack of desire
- lack of confidence
- dependency
- independency
- depersonalization
- identity conflict
- increased egocentricity

Cognitive
- lack of knowledge and understanding regarding preventive health care
- lack of knowledge regarding self care (and related skills)
- impaired intellectual ability
- inappropriate and unrealistic thinking
- inaccurate interpretation of environment

Aesthetic
- unpleasant surroundings

Self-Actualization

8. Effects - Specific physical or psychosocial indicators or manifestations of a problem in need satisfaction.

   Criteria for determining effects follow:

   Criteria for Determining Effects:

   a. Effects include subjective or objective observations (eg. concentrated urine; patient complaining of nausea, results of laboratory tests, vital signs).

9. Minor deficit of a need - A change in the quality or means of need satisfaction that requires an adjustment that the individual is capable of accomplishing independently or with minimal short term assistance.

10. Coping behavior - means behavior directed toward the ends of need satisfaction or threat reduction.

11. Effective coping behavior - Coping behavior that is successful in maintaining need satisfaction and reducing the threatening aspects of a challenge.

12. Ineffective coping behavior - Coping behavior that is unsuccessful in maintaining need satisfaction. Ineffective coping behaviors are included as problems of need satisfaction in this conceptual framework.

13. Nursing Process: The application of a problem solving approach to nursing that encompasses the following steps: assessment, planning, implementation and evaluation.

    13.1 Assessment, the collection of objective and subjective information about an individual's health status, the interpretation of the information, and the identification of the nursing diagnosis.

        13.11 information - objective and subjective facts about an individual, acquired from observation, interview, and reading of the individual's record.
        13.12 nursing diagnosis - a statement that includes the identification of the problem of need satisfaction, the challenge contributing to the problem and may include the description of the effects of the problem.

    13.2 Goal - a patient centered behavioral objective describing changes in the effects of problems of need satisfaction; it should be a measurable, specific, realistic and directly observable outcome of nursing approaches.

        13.21 short-term goal - the desired outcome of nursing approaches associated with current needs and problems.
        13.22 long-term goal - the desired outcomes of nursing approaches which reflects ultimate changes associated with the maximum potential of the individual for self care in need satisfaction.

13.3 Planning - the collection of data related to possible nursing approaches for a particular nursing diagnosis, and the selection of approaches to be used in the presenting situation; includes the incorporation of cooperative functions in the overall plan.

13.31 data - facts, principles, and approaches that can be considered together as a basis for action.

13.32 priority setting - the ranking of problems of need satisfaction according to the hierarchy of needs and the use of ranked problems as a guide in planning and implementing care for immediate concerns and problems first.

13.33 cooperative functions - those common elements of the therapeutic/non-nursing regime for health care of an individual that the nurse performs, facilitates, and/or coordinates.

13.34 nursing approaches - measures used to help prevent, alleviate or help solve problems of need satisfaction; approaches are specifically determined by the patient-centered goals, and are based on scientific principles; approaches are derived from established parameters and are selected in collaboration with the patient.

13.4 Goal Implementation - The performance or delegation of planned nursing approaches which include promoting, maintaining, supporting, restoring, communicating and teaching functions.

13.41 delegating - assigning auxiliary health care workers to selected technical aspects of care within the constraints of their qualifications and the institutional policy; and supervising their performance of assigned tasks.

13.5 Evaluation - Determination of the degree of effectiveness of the plan of care; evaluation of the results of specific nursing approaches based on the criteria established in the goals. Evaluation includes the recording of the patients responses to nursing approaches.

13.51 modification - based on evaluation and reassessment, the revision of approaches, goals, or nursing diagnosis statements.

13.4 Implementation - The performance or delegation of planned nursing approaches; includes actions related to the promotion, maintenance, support, and restoration of need satisfaction and communication and teaching functions.

NEEDS

- Oxygen
- Nutrition
- Elimination
- Activity
- Rest/Sleep
- Stimulation
- Sex
- Safety and Security
- Love and Belonging
- Self Esteem and Esteem of Others
- Cognitive
- Aesthetic
- Self Actualization

EXAMPLES OF SOME PROCESSES OF NEED SATISFACTION

Temperature regulation

Gas Exchange

Circulation

Ingestion

Digestion

Absorption

Metabolism/Utilization

Elimination - urinary, bowel

Motion

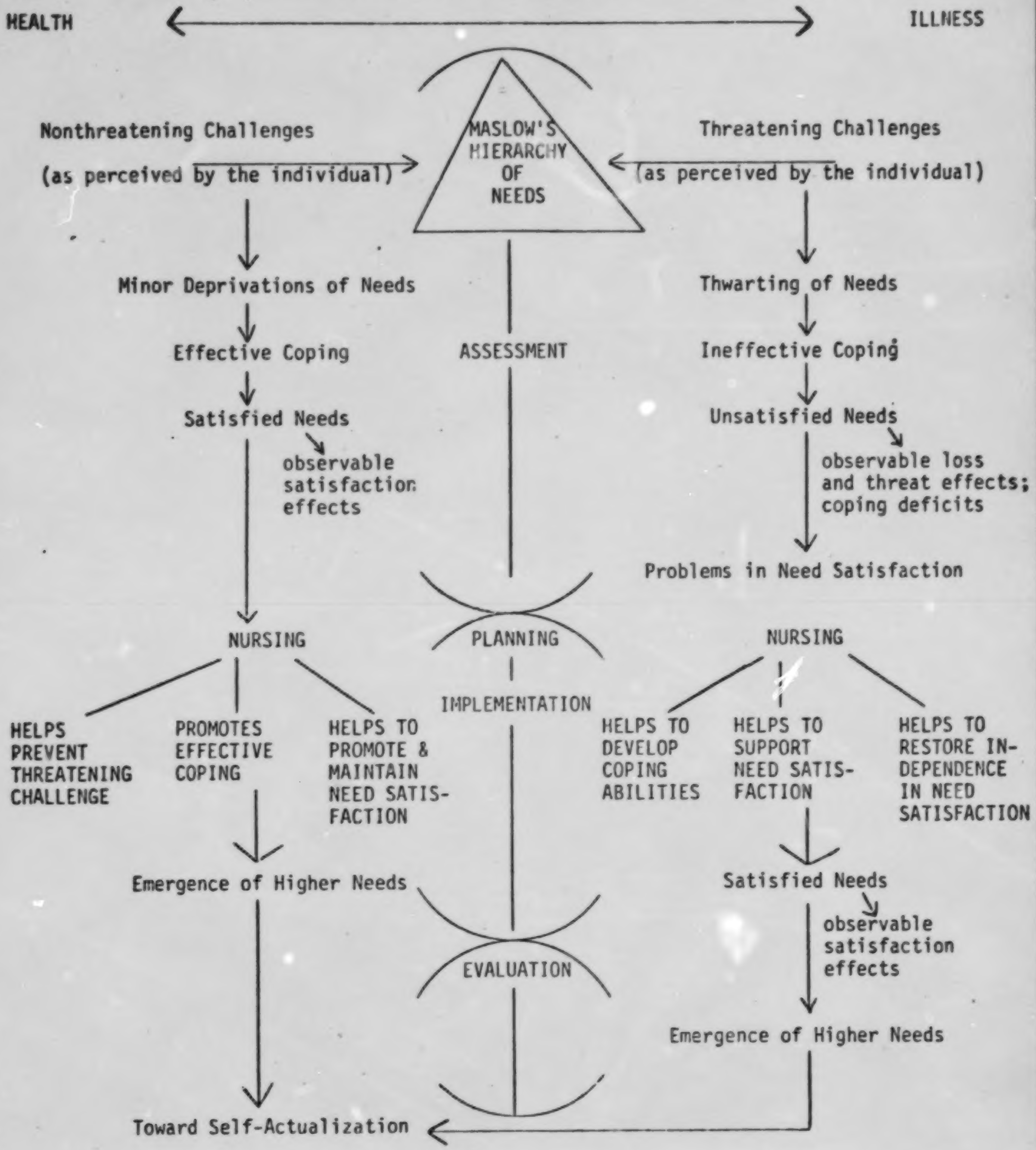
Sensation

Perception

Procreation

Psychosocial Development

DIAGRAM OF CONCEPTUAL FRAMEWORK


HEALTH
ILLNESS
Nonthreatening Challenges
(as perceived by the individual)
MASLOW'S HIERARCHY OF NEEDS
Threatening Challenges
(as perceived by the individual)
Minor Deprivations of Needs
Effective Coping
Satisfied Needs
observable satisfaction effects
ASSESSMENT
Thwarting of Needs
Ineffective Coping
Unsatisfied Needs
observable loss and threat effects; coping deficits
Problems in Need Satisfaction
NURSING
HELPS PREVENT THREATENING CHALLENGE
PROMOTES EFFECTIVE COPING
HELPS TO PROMOTE & MAINTAIN NEED SATISFACTION
Emergence of Higher Needs
Toward Self-Actualization
PLANNING
IMPLEMENTATION
EVALUATION
NURSING
HELPS TO DEVELOP COPING ABILITIES
HELPS TO SUPPORT NEED SATISFACTION
HELPS TO RESTORE INDEPENDENCE IN NEED SATISFACTION
Satisfied Needs
observable satisfaction effects
Emergence of Higher Needs

BROOKDALE COMMUNITY COLLEGE
ALLIED HEALTH CENTER
NURSING 121

Basic Need Satisfaction and Health

Course Discription:

Nursing is a caring, helping, humanistic profession in which many functions, techniques and ideas are applied in a variety of settings. A major goal of nursing is the promotion of optimum health throughout the life cycle. Toward this end, the student in this course, is introduced to Abraham Maslow's theory of human needs as a basis for technical nursing practice. Learning experiences concentrate on the acquisition of knowledge and skill that enables the student to contribute to the promotion and maintenance of need satisfaction. Learners develop beginning abilities in identification of baseline of normal health functioning and application of the nursing process to health care.

With assistance, the student begins to assess selected needs, implement basic nursing approaches and evaluate the achievement and appropriateness of daily patient centered goals.

Course Objectives:

1. Use Maslow's hierarchy to assess the basic health needs of individuals.

2. Plan and implement basic nursing approaches to promote and maintain need satisfaction.

3. Identify factors in the environment which may support or interfere with need satisfaction.

4. Contribute to the maintenance of an environment that promotes need satisfaction for individuals.

5. Identify the scientific rationale for learned nursing approaches.

6. Consider socio-cultural and developmental influences on an individual's health needs and usual patterns of need satisfaction.

7. Identify the limits and scope of an Associate Degree Nurse.

8. Apply learned verbal communication techniques in interactions with individuals.

9. Make relevant observations of an individual's coping mechanisms.

10. Record and report observations, nursing approaches, and patient responses to care, using learned vocabulary and style.

11. Establish, with assistance, daily patient-centered goals that are directed toward promoting and maintaining the individual's need satisfaction.

12. Identify clinical and academic strengths, weaknesses and personal goals with regard to achievement as a student in the nursing program.

8/80

BROOKDALE COMMUNITY COLLEGE
NURSING 121
PATIENT NEED SUMMARY

STUDENT NAME__________________ PATIENT INITIALS____________ DATE____________________

Description of Need	Assessment Guide	Patient Status	Nursing Approaches to Promote and Maintain Need Satisfaction	Patient response to Nursing Approaches

Unit 1 of 5

Nur 121
Course No.

Name of Unit: Introduction to the nursing process, basic needs and the life cycle.

Unit Objectives:

1. Identify the role of the nurse in the provision of health care today.
2. Use Maslow's hierarchy of human needs as a basis for problem identification.
3. Use Erikson's life cycle as a basis for understanding others.
4. Through the use of the nursing process, identify and meet the basic needs of individuals and/or families seeking the services of the nurse.
5. Use effective oral and written communication in relationships with patients and other members of the health team.

Learning Objectives	Recommended Learning Experiences.
1. IDENTIFY THE ROLE OF THE NURSE IN THE PROVISION OF HEALTH CARE TODAY. 1.1. Discuss the definition of nursing. 1.2. Discuss consumer rights as a component of health care. 1.3. Define the health care team and discuss it's scope. 1.4. Explain the various ways individuals can function within the health care team, independently and cooperatively. 1.5. Identify some common legal concerns for nurses. 1.6. Discuss the impact of illness on the individual and his family.	Lecture - Discussion. Textbook: Chapters land 2. Chapter 3 pp 47-50. Chapters 4, 5, 6.
2. USE MASLOW'S HIERARCHY OF HUMAN NEEDS AS A BASIS FOR PROBLEM IDENTIFICATION. 2.1. List in ascending order, the levels of Maslow's hierarchy. 2.2. Discuss the relationship of basic needs to nursing. 2.3. Discuss the physiologic and safety needs included in the hierarchy.	Lecture - Discussion. Textbook Chapter 7.

Learning Objectives	Recommended Learning Experiences
3. USE ERIKSON'S LIFE CYCLE AS A BASIS FOR UNDERSTANDING OTHERS. 3.1. Name and briefly discuss the eight stages of the life cycle according to Erikson. 3.2. Identify how the stages of the life cycle affect responses to illness.	Lecture - Discussion. Textbook: Chapters 10 and 11.
4. THROUGH THE USE OF THE NURSING PROCESS, IDENTIFY AND MEET THE BASIC NEEDS OF INDIVIDUALS AND/OR FAMILIES SEEKING THE SERVICES OF THE NURSE. 4.1. Discuss each step of the nursing process. 4.2. Identify the steps of the problem solving process. 4.3. Differentiate between objective and subjective data.	Lecture - Discussion. Textbook: Chapter 12. Lp 1742 Overview of the Nursing Process.
5. USE EFFECTIVE ORAL AND WRITTEN COMMUNICATION IN RELATIONSHIPS WITH PATIENTS AND OTHER MEMBERS OF THE HEALTH TEAM. 5.1. Identify the therapeutic purposes of communication. 5.2. Identify basic communication techniques to elicit information. 5.3. Identify some blocks to communication.	Lecture - Discussion. Textbook: Chapter 18.

Unit 2 of 5

Name of Unit: Promotion and Maintenance of Basic Need for Safety.

Unit Objectives:

1. Using the nursing process, plan nursing approaches for for selected to meet the need for psychological safety.
2. Using the nursing process plan and implement nursing care for selected patients to meet the need for physical safety.
3. Make a nursing assessment of vital signs for selected patients.

Learning Objectives	Recommended Learning Experiences
1. USING THE NURSING PROCESS, PLAN NURSING APPROACHES FOR SELECTED PATIENTS TO MEET THE NEED FOR PSYCHOLOGICAL SAFETY. 1.1. Through observation and assessment, identify individuals threatened by stress, fear, pain, uncertainty and anxiety. 1.11. Causes of disturbance to homeostasis. 1.12. General Adaptation Syndrome. 1.13. Stages of illness and injury. 1.14. Methods of coping including some of the defense mechanisms. (To be discussed in the following order). - Denial. - Compensation. - Projection. - Identification. - Sublimation. - Displacement. - Reaction formation. - Isolation. - Reversal. - Regression. - Rationalization. - Day Dreaming. - Repression. - Suppression. - Fixation. - Conversion. - Malingering. 1.15. From this knowledge, plan nursing approaches toward a therapeutic environment, including positive communication techniques. 1.16. Evaluate and recognize the need for modification of nursing approaches.	Lecture - Discussion. Textbook: Chapters 7 and 8. SF 844 Developing skills in Observation. LP 1064 Psychosocial Adaptation. LP 1598 Anxiety. SF 1143 The Anxious Patient. SF 206 Nurse-Patient Interaction: The Nurse. SF 207 Nurse-Patient Interaction: The Interaction. SF 212 Nurse Patient Interaction: Techniques of Therapeutic Communication. SF 1281 The Silent Vocabulary. SF 1282 Kinesics: The Study of Body Language. SF 1283 Touch.

Learning Objectives	Recommended Learning Experiences
1.2. Demonstrate a knowledge of basic concepts of mental health. 1.21. Self understanding. 1.22. Self concept. 1.23. Human dignity. 1.24. The whole person - wholeness as related to the individual, family, friends and self.	Textbook: Chapter 13.
2. USING THE NURSING PROCESS, PLAN NURSING APPROACHES FOR SELECTED PATIENTS TO MEET THE NEED FOR PHYSICAL SAFETY.	Lecture - Discussion. Textbook: Chapter 20.
2.1. Implement nursing approaches to prevent the spread of microorganisms.	College Lab Demonstration of Skills. College Lab Practice. SF 1293 Basic Concepts of Microbiology. SF 1294 Implications for Nursing. ML 260 Handwashing: Routine. ML 741 Handwashing. SF 22 Making the Unoccupied Bed. SF 367 Making the Occupied Bed. SF 861 Protecting the Patient from his environment.
2.2. Identify problems in which the patient needs the help of the nurse to protect him from physical hazards in the environment.	SF 1302 Patient Safety Part I. Part II.
2.3. Use proper body mechanics in giving care.	SF 770 An Introduction to Posture. SF 769 Principles of Body Mechanics. SF 771 Applying Body Mechanics.
2.4. Position patients for maximum comfort and physiologic functioning.	Textbook: Chapter 22. SF 13 Lifting and Moving Patients. SF 10 Transfer Activities and Ambulation. SF 772 Patient Transfer and Ambulation. SF 11 Positioning to Prevent Contractures. ML 291 Preventing External Rotation. ML 290 Prevention of foot drop.

Unit 3 of 5

Name of Unit: Promotion and Maintenance of Basic Physiologic Needs I.

Unit Objectives:

1. Identify significant observations to be made when admitting a patient and taking a nursing history.
2. Accurately administer medications to selected patients.
3. Using the nursing process, plan nursing approaches for selected patients to insure that their comfort, rest and sleep needs are met.
4. Using the nursing process, plan nursing approaches for selected patients to meet the basic need for activity and stimulation.
5. Using the nursing process, plan nursing approaches for selected patients who are isolated.

Learning Objectives	Recommended Learning Experiences
1. IDENTIFY SIGNIFICANT OBSERVATIONS TO BE MADE WHEN ADMITTING A PATIENT AND TAKING A NURSING HISTORY. 1.1. Identify the subjective and objective symptoms. 1.2. State three methods used in clinical observation other than enspection and interrogation and explain each. 1.3. Explain the rationale for the nursing history. 1.4. Identify the nursing approaches for the patient being admitted to the hospital.	Lecture - Discussion. Textbook: Chapter 12 and pages 225 - 230. SF 404 Admission and Discharge. SF 407 Maintaining the Patient's Chart.
2. ACCURATELY ADMINISTER MEDICATIONS TO SELECTED PATIENTS. 2.1. Identify and follow scientific principles for administering oral and parenteral medications. 2.2. Identify legal aspects of drug administration. 2.3. Identify principles of esepsis in drug administration.	Lecture - Discussion. Textbook: Chapter 36. College Lab Demonstration of Skills or Identified Audio-Visual Materials. College Lab Practice. LP 1633 Preparation of Oral Meds. SF 773 Medications: Oral Administration. SF 790 Administering Medications: General Considerations. SF 791 Administration of Meds: Routes, Procedures and Techniques. LP 264 Medications: Rectal. LP 916 Medications: The Pediatric Patient. LP 1365 Medicating Children.

"Unit 3 continued

Learning Objectives	Recommended Learning Experiences.
	SF 47 Subcutaneous and Intramuscular Injection. ML 293 Subcutanious Injection: Sites, Selection and Administration. ML 294 Selection Site for I.M. Injection: Deltoid. ML 295 "" " ": Lateral Thigh. ML 296 " " : Ventrogluteal. ML 297 " " : Dorsogluteal. ML 298 Administration of an Intramuscular Injection.
3. USING THE NURSING PROCESS, PLAN NURSING APPROACHES FOR SELECTED PATIENTS TO INSURE THAT THEIR COMFORT, REST AND SLEEP NEEDS ARE MET. 3.1. Define circadian rhythms. 3.2. Describe the sleep cycle. 3.3. Identify the physiological and behavioral effects of failure to fulfill the body's need for sleep and rest. 3.4. Discuss factors disturbing normal sleep patterns. 3.5. Identify principles guiding nursing action in helping people to meet comfort, rest and sleep needs.	Lecture - Discussion. Textbook: Pages 103, 572 -580. SF 479 The Nature of Sleep. SF 478 Sleep: Nursing Action.
4. USING THE NURSING PROCESS, PLAN NURSING APPROACHES FOR SELECTED PATIENTS TO MEET THE BASIC NEED FOR ACTIVITY AND STIMULATION. 4.1. Identify principles guiding nursing action in helping patients meet their need for exercise. 4.2. Discuss the physiologic effects for the patient on bed rest. 4.3. Identify situations that might predispose to sensory disturbances.	Lecture - Discussion. Textbook: Chapter 34 and pages 104 - 105.

Unit 3 continued

Learning Objectives	Recommended Learning Experiences
5. USING THE NURSING PROCESS, PLAN NURSING APPROACHES FOR SELECTED PATIENTS WHO ARE ISOLATED. 5.1. Identify types of isolation. 5.2. Identify coping mechanisms of the isolated patient. 5.3. Identify the necessary equipment to set up and maintain an isolation unit.	Lecture - Discussion. Textbook: pp. 330 - 334. College Lab Demonstration and Practice. SF 842 Sensory Deprivation in the Patient in Isolation. SF 1295 Categories of Isolation. SF 1297 Protective Isolation. SF 1296 Respiratory and Strict Isolation. ML 389 Blood Pressure In Isolation. ML 390 Gown: Reuse Technique. SF 6 Medical Asepsis.
6. EXPLAIN THE INFLUENCE THAT CULTURE AND ETHNIC CHARACTERISTICS OF AN INDIVIDUAL IMPOSE ON NURSING AND HEALTH. 6.1. Identify some common cultural beliefs and habits that would influence basic nursing care.	Lecture - Discussion. Textbook: Chapters 9 and 32; page 108.

Unit 4 of 5

Name of Unit: Promotion and Maintenance of Basic Physiologic Needs 2.

Unit Objectives:

1. Using the nursing process, plan nursing approaches to assist the patient in satisfaction of the need for food.
2. Using the nursing process, plan nursing approaches to assist the patient in satisfaction of the need for fluids.
3. Using the nursing process, plan nursing approaches to help the individual meet the basic need for elimination.

Learning Objectives	Recommended Learning Experiences
1. USING THE NURSING PROCESS, PLAN NURSING APPROACHES TO ASSIST THE PATIENT IN SATISFACTION OF THE NEED FOR FOOD.	Lecture - Discussion. Textbook: Chapter 25 and page 103. Nutrition text: Chapters 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 16 and 18.
1.1. Discuss the psychosocial, cultural and religious significance of food to the individual.	
1.2. Identify characteristics of good nutritional status.	
1.3. Identify daily food guides and the four food groups.	
1.4. Discuss the classifications of vitamins and minerals.	
1.5. Discuss common nutritional problems, preferences, food fads and obesity.	
1.6. Identify principles guiding nursing action in feeding helpless patients.	LP 1911 Assisting with Eating. SF 51 Food Service. SF 403 Feeding the Patient.
1.7. Identify and follow principles for intubation and gavage feedings.	SF 134 Naso gastric Intubation and Gavage Feeding. Nutrition Study.
2. USING THE NURSING PROCESS, PLAN NURSING APPROACHES TO ASSIST THE INDIVIDUAL IN SATISFACTION OF THE NEED FOR FLUIDS.	Lecture - Discussion. Textbook: Chapter 29 and p. 102. Nutrition text: Chapter 9.
2.1. Identify principles guiding nursing action in assisting the individual to meet his need for fluids.	
2.2. Accurately measure intake and output.	SF 747 Fluid Balance. SF 97 Intake and Output Parts I & 2. SF 1129 Basic Intake and Output.
2.3. Identify the fluid compartments of the body and normal daily fluid requirements for adult and child.	

Learning Objectives	Recommended Learning Experiences
2.4. Identify the major electrolytes of each fluid compartment.	SF 748 Electrolyte Balance.
2.5. Discuss means by which water and electrolytes are gained and lost in health and illness.	LP 2258 Functions of Electrolytes. SF 251 Body's Regulation of Acid-Base Balance.
2.6. Discuss the classification of electrolyte replenishers.	SF 252 Compensation of Imbalances.
2.7. Define dehydration and edema.	
3. USING THE NURSING PROCESS, PLAN NURSING APPROACHES TO HELP THE INDIVIDUAL MEET THE BASIC NEED FOR ELIMINATION.	Lecture - Discussion. Textbook Chapters 26 and 27.
3.1. Discuss normal patterns of bowel and bladder elimination.	College Lab demonstration of skills or identified media.
3.2. Assess the individual's elimination in relation to diet.	College Lab practice.
3.3. Identify common problems with which the nurse can help the individual in maintaining balance in relation to elimination.	ML 245 Asepsis: Sterile Glove Application. SF 52 Urinary Catheterization: Male and Female.
3.4. Discuss the classification of laxatives and cathartics.	SF 1271 Closed Urinary Drainage System.
3.5. Identify scientific principles involved in the irrigation and drainage of body cavities.	LP 1674 Cleansing Enemas. LP 1677 Enemas. SF 795 Siphonage Enema, Colonic Irrigation and Placement of Rectal Tubes.
3.6. Identify measures to encourage a patient to void.	
3.7. Define retention and suppression.	
3.8. Define diarrhea and constipation and discuss the nonpathologic causes for each.	

Unit 5 of 5

Name of Unit: The Biopsychosocial Components of Human Sexuality as they are Related to the Desired Coping Skills Necessary for Sexual Need Satisfaction.

Unit Objective: Using the nursing Process, plan nursing approaches to assist the family in providing sexual need satisfaction.

Learning Objectives	Recommended Learning Experiences
USING THE NURSING PROCESS, PLAN NURSING APPROACHES TO ASSIST THE FAMILY IN PROVIDING SEXUAL NEED SATISFACTION.	Lecture - Discussion.
1. Describe the anatomy and physiology of the reproductive systems.	Textbook pages 771 - 776. ML 493 Human Reproduction and Birth.
2. Define current concepts of contraceptive techniques and their rationale.	SF 739 The Reproduction System. SF 745 Reproduction in Humans.
2.1. Biological periodic abstenance.	LP 1244 Contraception.
2.2. Hormonal therapy. - Single hormonal therapy. - Combined " " " ". - Ways in which these drugs prevent contraception. - Contraindications to oral contraceptives.	
2.3. Chemical contraception. - Spermacidal jellies.	
2.4. Mechanical contraception. - Intrauterine device. - Condom. Aid to prevention of venereal disease. - Diaphram.	
2.5. Coitus interrupticus.	
2.6. Surgical interruption of pregnancy.	LP 1686 Viewpoint - The Nurse and Abortion.
- Indications for therapeutic abortion. - Early abortion. - Surgical dilatation and curettage. - Uterine aspiration. - Midtrimester abortion. - Transabdominal uterine injection of hypertonic sodium chloride. - Transabdominal uterine injection of Prostoglandin.	LP 1700 Abortion.
2.7. Surgical termination of fertility. - Therapeutic indications. - Tubal ligation. - Hysterectomy. - Vasectomy.	

Learning Objectives	Recommended Learning Experiences
3. Explore your own values and beliefs about fertility control as it relates to human sexual need satisfaction.	Write a short paper, (not more than three pages) expressing your own beliefs and values and how they would interfere or help to carry out nursing intervention in a family planning setting.
4. Describe the role of the nurse in assisting the family toward sexual need satisfaction.	Discussion of planned parenthood services. Birthright. Right to Live.
4.1. Describe the ideal environment for family counseling	
4.2. Assess the family's knowledge of the biological and psychosocial components of human sexuality.	
4.3. Assess the family's psychosocial background.	
4.4. Explain the current concepts of fertility control and their rationale.	
4.5. Explain how the spacing of pregnancies promotes the maintenance of physiologic need satisfaction for the family.	
4.6. List the community agencies that offer assistance to individuals with problems of sexuality.	
5. Using the nursing process, assist the family to select the type of fertility control that will provide for ongoing sexual need satisfaction.	Visit to planned parenthood clinic if available.

NUR 121 CHALLENGE

THEORY EXAMINATION CONTENT

	Content Area	Question #
1.	Maslow and Erikson Questions	1 - 10
2.	Communication and Mental Health Questions	11 - 24
3.	Elimination	25 - 36
4.	General Hygiene	37 - 46
5.	Pharmacology	47 - 66
6.	Legal and Ethical	67 - 76
7.	Body Mech and Positioning	77 - 86
8.	Vital Signs	87 - 106
9.	Sexuality	107 - 114
10.	Nutrition	115 - 134
11.	Asepis	135 - 144

Total Points - 144

0 = less than 75%
X = acceptable

For a grade of credit the student must achieve at least a total of 115 right answers. (80%).

NUR 121 CHALLENGE EXAM LABORATORY SKILLS

Handwashing
Unoccupied Bed
Occupied Bed
Post op Bed
Crib
Oral Care
Bed Bath (Adult, Child)
Range of Motion
Back rub
Bed Pan - Urinal
Moving side to side
Pulling up in bed
Lifting sheet
Transfer bed to chair
Transfer bed to wheel chair
Supine position
Prone position
Sitting position
Side lying position
Trochanter roll
Food board
Temperature (adult, child)
Pulse
Respirations
Blood pressute
Apical Rate
Apical-Radial rate
Oral meds (adult, child)
Intramuscular medications
      All sites
Hypodermic injection
Mixing two drugs in syringe
Barrier Isolation
Sterile gloves
Catheterization
Catheter irrigation
Aspiration of specimen
Clean catch urine
Fractional urine
Cleansing anema
Colonic Irrigation
Rectal tube
Harris flush
Stool specimen
Gavage-Gastric

ALL 121 LAB SKILLS

1. Medical asepsis
2. Handwashing
3. Bedmaking; occupied, unoccupied, post-op, crib
4. Positioning and moving, turning, and ambulation
5. ROM
6. T.P.R. (aspcial & pedal) blood pressure
7. Assisting with physical exam
8. evening care
9. serving trays and feeding patients
10. Intake and output
11. Principles of irrigation of cavities (enemas-all types)
12. Colonic irrigation
13. Rectal tube
14. Catheterization - straight
15. Foley-closed drainage system
16. Catheter irrigation
17. Oral care
18. Bed pan
19. Bed bath; child and adult
20. Sugar and acetone urine tests
21. Medications - oral; IM; subcutaneous; sub-lingual
22. Restraints
23. Isolation techniques
24. Collection or urine specimen (including clean catch)
25. Collection of stool specimen and sterile specimens from Foley catch.

NUR 121

COLLEGE LABORATORY EVALUATION

You will be expected to demonstrate correct procedures for each of the following:

1. Handwashing

2. Hygiene
   2.1 Administer a bed bath.

   2.2 Backrub
   (check body mechanics & handling of patient while doing this)

3. Positioning and moving
   3.1 Select one from the following:
      3.11 Protective side lying

      3.12 Protective sitting.

      3.13 Supine
      (check body mechanics while doing this)

   3.2 Apply a trochanter roll

   3.3 Assist patient from bed to chair
   (Check body mechanics, safety and handling of patient)

   3.4 Pull a patient up in bed
   (check body mechanics and handling of patient)

4. Vital signs (no temperature as it is different at hospitals)
   4.1 Pulse rate

   4.2 Blood Pressure
   4.3
   4.3 Apical Rate

5. Elimination

   5.1 Catheterization
      5.12 Put on sterile gloves without contaminating

      5.13 Insert foley catheter and inflate

      5.14 Attach to drainage and anchor

      5.15 Irrigate catheter

      5.16 Remove catheter
      (check body mechanics and sterile techniques)

   5.2 Enemas
      5.21 Prepare a tap water enema

      5.22 Position patient

5.23 Insert Rectal tube

5.24 Identify Principles of giving enema

5.3 Explain how to collect a "clean catch" specimen.

6. Insertion Nasogastric Tube
6.1 Gavage Feeding

6.11 Bag

6.12 Syringe

6.2 Removal of tube

7. Medications
7.1 Administer selected oral medications (select 2 tablets & 1 liquid)

7.2 Administer an intramuscular injection (dorsogluteal)
7.21 Select proper syringe and needle

7.22 Identify site properly

7.23 Administer injection
(check: cleansing, injection, aspiration, removal, massage.)

7.3 Administer a subcutaneous injection (upper arm)
7.31 (same as steps in in 7.2)

7.4 Prepare a tube for injection and take it apart.

8. Isolation
8.1 Put on isolation gown.

8.2 Disposal of linen.

8.3 Disposal of instruments and utensils

8.4 Remove gown - wash hands.

9. Chart - hygiene, catheterization and enema.

NUR 121 CHALLENGE

THEORY EXAMINATION CONTENT

Content Area	Question #
1. Maslow and Erikson Questions	1 - 10
2. Communication and Mental Health Questions	11 - 24
3. Elimination	25 - 36
4. General Hygiene	37 - 46
5. Pharmacology	47 - 66
6. Legal and Ethical	67 - 76
7. Body Mech and Positioning	77 - 86
8. Vital Signs	87 - 106
9. Sexuality	107 - 114
10. Nutrition	115 - 134
11. Asepis	135 - 144

Total Points - 144

O = less than 75%
X = acceptable

For a grade of credit the student must achieve at least a total of 115 right answers. (80%).

PERFORMANCE CHECKLIST

HANDWASHING: Student:____________________

	S	U	NA
1. Rolled sleeves above elbows and removed watch.			
2. Did not touch outside or inside of sink.			
3. Turned on water and adjusted temperature.			
4. Lathered hands and wrists well using rotary motion.			
5. Cleaned fingernails.			
6. Held hands lower than elbows. Washed with running water, using rotary motion and giving special attention to areas between fingers. Left water running during entire procedure.			
7. Rinsed soap before replacing in soap dish.			
8. Washed hands and wrists twice.			
9. Rinsed thoroughly, keeping hands lower than elbows.			
10. Dried hands thoroughly, from fingers to wrist not going back to fingers with same towel.			
11. Turned off water with dry paper towel.			

Date:____________________---- Credit:______________

Instructor:__________________ Needs more practice:________

PERFORMANCE CHECKLIST

APICAL PULSE RATE:

Student:____________________

	S	U	NA
1. Washed hands.			
2. Identified patient and explained procedure.			
3. Obtained equipment.			
4. Cleaned ear pieces of stethoscope.			
5. Positioned patient, provided for privacy.			
6. Warmed diaphragm of stethoscope.			
7. Inserted earpieces correctly.			
8. Located site by anatomic structures.			
9. Listened for heart sound and counted one minute.			
10. Recorded apical rate noting rate, force, rhythm.			
11. Removed stethoscope from ears and chest.			
12. Recorded information.			
13. Cleaned and replaced equipment in proper area.			

Date:__________________

Instructor:__________________

Credit:__________

Needs more practice:_______

PERFORMANCE CHECKLIST

BLOOD PRESSURE

Student:____________________

	S	U	NA
1. Washed hands.			
2. Obtained equipment.			
3. Cleaned ear pieces of stethoscope.			
4. Identified patient and explained procedure.			
5. Positioned patient,			
6. Applied cuff properly.			
7. Arranged ear pieces of stethoscope properly.			
8. Palpated brachial artery.			
9. Palpated radial artery.			
10. Closed valve on air pump.			
11. Inflated cuff slowly until radial pulse ceased.			
12, Inflated cuff 20 mm of mercury higher.			
13. Placed diaphragm of stethoscope over brachial artery.			
14. Observed mercury and listened to sounds.			
15. Removed equipment from patient's arm.			
16. Recorded values of first and last beat. Noted muffling sound.			
17. Returned materials and equipment to storage.			

Date:________________

Credit:____________

Instructor:____________________

Needs more practice:____________

PERFORMANCE CHECKLIST

ORAL MEDICATIONS: TABLETS. Student:________________________

	S	U	NA
1. Obtained medication ticket.			
2. Compared ticket with order.			
3. Washed hands.			
4. Obtained proper container for tablets.			
5. Removed medication from shelf.			
6. Compared medication label with ticket.			
7. Determined proper amount of medication to pour.			
8. Poured medication without touching tablets.			
9. Compared medication label with ticket.			
10. Returned medication to shelf.			

Date:________________ Credit:__________

Instructor:________________________ Needs more practice:__________

PERFORMANCE CHECKLIST

ORAL MEDICATIONS: LIQUID.

Student:____________________

	S	U	NA
1. Obtained medication ticket.			
2. Compared ticket with order.			
3. Washed hands.			
4. Selected appropriate container.			
5. Removed medication from shelf.			
6. Compared medication label with ticket.			
7. Determined proper amount of medication to pour.			
8. Poured away from label.			
9. Discarded excess medication.			
10. Compared medication label with ticket.			
11. Checked bottle for drips and wiped clean.			
12. Returned medication to shelf.			

Date:________________

Credit:____________

Instructor:______________________

Needs more practice:____________

PERFORMANCE CHECKLIST

PARENTERAL MEDICATIONS: AMPULES Student:____________________

	S	U	NA
1. Flicked top of ampule to dislodge drops of medication.			
2. Wrapped top of ampule with gauze before breaking.			
3. Inserted needle carefully without contamination.			
4. Withdrew fluid.			
5. Inverted syringe to expel air.			
6. Covered needle to carry to bedside.			

Date:____________________ Credit:____________

Instructor:____________________ Needs more practice:____________

PARENTERAL MEDICATION: VIALS. Student:____________________

	S	U	NA
1. Cleaned top thoroughly with disinfectant.			
2. Drew air into syringe equivalent to dosage of medication.			
3. Inserted needle without contamination.			
4. Injected air into vial.			
5. Inverted vial and withdrew medication.			
6. Withdrew needle and expelled air.			
7. Covered needle.			

Date:____________________ Credit:____________

Instructor:____________________ Needs more practice:____________

PERFORMANCE CHECKLIST

MIXING TWO DRUGS - USING TUBEX SYRINGE

Student:________________

	S	U	NA
1. Washed hands.			
2. Selected appropriate tubex syringe.			
3. Selected correct cartridge.			
4. Inserted cartridge into tubex.			
5. Tightened cartridge.			
6. Attached plunger.			
7. Tightened plunger.			
8. Selected correct vial of medication.			
9. Cleansed vial.			
10. Inserted needle into vial.			
11. Ejected air from tubex cartridge.			
12. Inserted tubex needle into vial.			
13. Withdrew correct amount of medication.			
14. Removed tubex from vial.			
15. Covered tubex needle.			
16. Removed needle from vial.			
17. Correctly removed cartridge from tubex.			

Date:__________________

Credit:_______

Instructor:_____________________

Needs more practice:_______

PERFORMANCE CHECKLIST

INTRAMUSCULAR INJECTION Student:____________________

c̄ vial

	S	U	NA
1. Washed hands.			
2. Selected appropriate needle and syringe.			
3. Prepared dosage accurately.			
4. Located site accurately.			
5. Cleansed skin in a circular motion beginning at site for injection.			
6. Added correct amount of air to syringe.			
7. Stretched skin.			
8. Injected needle at 90 degree angle.			
9. Released hold on skin.			
10. Aspirated.			
11. Injected medication slowly.			
12. Used sponge to hold skin at site of injection.			
13. Withdrew needle quickly.			
14. Massaged area.			
15. Covered needle.			

Date:______________ Credit:________________

Instructor:____________________ Needs more practice:________

PERFORMANCE CHECKLIST

SUBCUTANEOUS INJECTION

Comp

Student:____________________

	S	U	NA
1. Washed hands.			
2. Selected appropriate needle and syringe.			
3. Prepared dosage accurately.			
4. Selected appropriate site.			
5. Cleansed skin in circular motion beginning at site for injection.			
6. Pinched subcutaneous tissue.			
7. Injected needle at 45 degrees.			
8. Released hold on skin.			
9. Aspirated.			
10. Injected fluid slowly.			
11. Used sponge to hold skin at site of injection.			
12. Withdrew needle quickly.			
13. Massaged area.			
14. Covered needle.			

Date:______________

Credit:________

Instructor:______________________

Needs more practice:__________

PERFORMANCE CHECKLIST

INTRADERMAL INJECTION

Student:________________________

	S	U	NA
1. Washed hands.			
2. Selected appropriate needle and syringe.			
3. Prepared dosage accurately.			
4. Selected site accurately.			
5. Cleansed skin in circular motion beginning at site for injection.			
6. Held skin taut.			
7. Inserted needle, bevel side up at 15 degree angle.			
8. Released hold on skin.			
9. Injected fluid slowly.			
10. Withdrew needle slowly.			
11. Did not massage area.			
12. Covered needle.			

Date:________________

Credit:_________

Instructor:_____________________

Needs more practice:_______

PERFORMANCE CHECKLIST

RETENTION CATHETER: Student:____________________

	S	U	NA
1. Washed hands.			
2. Assembled equipment.			
3. Brought equipment to bedside.			
4. Explained procedure to patient.			
5. Provided privacy.			
6. Draped and positioned patient.			
7. Washed perneum if necessary.			
8. Arranged for adequate lighting.			
9. Placed tray between patient's legs.			
10. Opened tray without contamination.			
11. Put on sterile gloves properly.			
12. Proceeded with catheterization without contamination.			
13. Inflated bag properly.			
14. Tested inflation by pulling gently.			
15. Fastened drainage/catheter tubing to inner aspect of thigh.			
16. Placed drainage receptacle in safe place.			
17. Cleaned and replaced equipment.			

Date:________________ Credit:____________

Instructor:_____________________ Needs more practice:_______

PERFORMANCE CHECKLIST

CATHETER IRRIGATION: Student:____________________

	S	U	NA
1. Assembled equipment:			
2. Explained procedure to patient.			
3. Provided privacy.			
4. Disconnected catheter.			
5. Maintained sterility of drainage tube.			
6. Filled syringe with proper amount of fluid.			
7. Inserted tip into catheter.			
8. Allowed fluid to flow in by gravity.			
9. Pinched catheter and removed syringe.			
10. Allowed fluid to flow out by gravity.			
11. Reconnected catheter using sterile technique.			

Date: ________________ Credit:__________

Instructor:____________________ Needs more practice:__________

PERFORMANCE CHECKLIST

GASTRIC INTUBATION

Student: ____________________

	S	U	NA
1. Washed hands.			
2. Assembled equipment and chilled tube (if necessary).			
3. Identified patient.			
4. Explained procedure to patient.			
5. Positioned patient in high fowlers position with head slightly flexed.			
6. Placed clean towel on patient's chest.			
7. Gave patient water, with straw, to sip.			
8. Accurately measured distance for tube insertion.			
9. Lubricated tube.			
10. Introduced tube slowly through nostril, guiding gently but steadily.			
11. Temporarily anchored tube.			
12. Checked for proper position of tube using a reliable method.			
13. Secured tube to patient's nose and attached to gown.			
14. Assisted patient to comfortable position.			
15. Cleaned and replaced equipment.			

Date: ______________

Credit: ______________

Instructor: ____________________

Needs more practice: ______

PERFORMANCE CHECKLIST

GAVAGE

Student:________________________

	S	U	NA
1. Washed hands.			
2. Warmed feeding to room temperature.			
3. Explained procedure to patient.			
4. Tested for placement of tube.			
5. Positioned patient in semi fowlers if possible.			
6. Administered small amount of water.			
7. Pinched tube.			
8. Administered feeding slowly via asepto syringe, bag, or prefilled set.			
9. Pinched tube, not allowing air to enter.			
10. Administered small amount of water.			
11. Tightly clamped or replugged tube.			
12. Repositioned patient.			
13. Cleaned and replaced equipment.			

Date:______________

Credit:________

Instructor:______________________

Needs more practice:________

PERFORMANCE CHECKLIST

RANGE OF MOTION Student:________________________

	S	U	NA
1. Washed hands.			
2. Explained to patient what was to be done.			
3. Lowered head of bed, raised bed to working level.			
4. Performed all range of motion.			
A. NECK Extension			
flexion.			
Lateral flexion			
Rotation, right.			
Rotation, left.			
B. SHOULDER Flexion			
Extension			
Abduction			
Adduction			
Internal rotation			
External rotation			
C. ELBOW Flexion			
Extension			
D. WRIST flexion			
Extension			
Radial deviation			
Ulnar deviation			
Circumduction			

Range of motion continued

	S	U	NA
E. FINGERS AND THUMB Flexion			
Extension			
Abduction			
Adduction			
Circumduction (thumb)			
F. HIP AND KNEE: Flexion			
Extension			
Abduction			
Adduction			
Internal rotation			
External rotation			
G. ANKLE: Dorsiflexion			
Plantar flexion			
Circumduction			
H. TOES Flexion			
Extension			
Abduction			
Adduction			
5. Washed hands.			

Date:____________________ Credit:______

Instructor:______________________ Needs more practice:______

PERFORMANCE CHECKLIST

TROCHANTER ROLL

Student:____________________

	S	U	NA
1. Folded bath blanket or sheet lengthwise.			
2. Measured to extend from trochanter to knee.			
3. Placed flat end under patient's body.			
4. Rolled extended end under and snuggled under trochanter			
5. Noted position of foot and leg.			

Date:_______________

Credit:_______

Instructor:____________________

Needs more practice:__________

PERFORMANCE CHECKLIST

PROTECTIVE SUPINE POSITION Student: ____________________

	S	U	NA
1. Placed patient on back with spine straight.			
2. Placed low pillow under head.			
3. Placed arms at side or elevated on pillow with hands prone.			
4. Placed hand rolls if needed.			
5. Kept legs straight.			
6. Positioned feet in proper alignment.			
7. Placed call bell within reach.			
8. Side rails up.			

Date: ____________________ Credit: ________

Instructor: ____________________ Needs more practice: __________

PERFORMANCE CHECKLIST

PROTECTIVE PRONE POSITION Student:________________________

	S	U	NA
1. Placed patient on abdomen.			
2. Turned patient's head to one side.			
3. Straightened spine.			
4. Placed arms flat at sides or flexed at elbow near head			
5. Placed folded towel under each shoulder if necessary.			
6. Placed folded towel or small pillow below breasts for female. above genital area for male.			
7. Positioned feet in space between mattress and footboard. or used rolls under ankles.			
8. Placed call bell within reach.			
9. Side rails up.			

Date:____________________ Credit:___________

Instructor:________________________ Needs more practice:______

PERFORMANCE CHECKLIST

PROTECTIVE SITTING POSITION Student:________________

	S	U	NA
1. Placed patient in fowlers position.			
2. Placed pillow behind head and shoulders maintaining neck alignment.			
3. Placed small pillow in space at lower back if needed.			
4. Placed small pillow or towel under thighs.			
5. Positioned feet to prevent footdrop.			
6. Placed pillow under each arm maintaining proper alignment of shoulders.			
7. Placed hand rolls if needed.			
8. Placed call bell within reach.			
9. Side rails up.			

Date:__________ Credit:__________

Instructor:________________________ Needs more practice:______

PERFORMANCE CHECKLIST

PROTECTIVE SIDE LYING POSITION Student:________________________

	S	U	NA
1. Turned patient on side.			
2. Placed low pillow under head.			
3. Placed lower arm forward of body.			
4. Flexed top arm and placed on pillow in front of body.			
5. Placed hand rolls if needed.			
6. Flexed top leg at right angle from hip and placed on pillow.			
7. Checked alignment of spine.			
8. Supported back with undertucked pillow if necessary.			
9. Checked foot alignment and position.			
10. Placed call bell within reach.			
11. Side rails up.			

Date:______________________ Credit:_______

Instructor:______________________ Needs more practice:________

PERFORMANCE CHECKLIST

ENTERING ISOLATION ROOM - RE USE GOWN TECHNIQUE Student:____________

	S	U	NA__
1. Removed ring and watch.			
2. Washed hands.			
3. Grasped inside of gown near neck and removed from stand.			
4. Held gown away from uniform.			
5. Opened gown, inside toward self.			
6. Brought neckband in place to neck.			
7. Bent back slightly so gown was held against clothing.			
8. Slipped one arm into sleeve, then the other.			
9. Fastened neck band.			
10. Grasped back of gown at waist.			
11. Pulled back of gown straight out from body.			
12. Placed insides of gown together.			
13. Rolled ends of gown together to fit snugly.			
14. Fastened waist ties so gown held securely.			

Date:______________ Credit:________

Instructor:____________________ Needs more practice:________.

PERFORMANCE CHECKLIST

DOUBLE BAGGING

Student:____________________________

	S	U	NA
1. Inside nurse: Placed linen and/or articles in bag in room and secured.			
2. Outside nurse: Held clean bag protecting hands with cuff formed at top edges.			
3. Inside nurse: Placed contaminated bag in clean bag held by outside nurse.			
4. Outside nurse: carefully folded and secured top of bag, marking in prescribed manner.			

Date:------------------

Credit:________

Instructor:________________________

Needs more practice:________

PERFORMANCE CHECKLIST

REMOVING ISOLATION GOWN Student:____________________

	S	U	NA
1. Untied waist ties.			
2. Pushed sleeves up slightly.			
3. Washed hands.			
4. Untied neck band.			
5. Removed gown touching inside only.			
6. Grasped neckband.			
7. Folded gown in half lengthwise, insides together.			
8. Grasped front and back of gown below neckband.			
9. Gathered gown together to shoulders.			
10. Placed gown on stand, neck up, opening toward door.			
11. Washed hands.			

Date:____________________ Credit:________

Instructor:____________________ Needs more practice:______

PERFORMANCE CHECKLIST

COLONIC IRRIGATION Student:____________________

	S	u	na
1. Gathered equipment and assembled.			
2. Explained procedure to patient.			
3. Positioned patient.			
4. Prepared solution 3,000 ml.			
5. Placed protective pad on bed.			
6. Filled container; placed on I.V. stand 18 inches above rectal area.			
7. Lubricated rectal tube.			
8. Exposed anus.			
9. Inserted rectal tube.			
10. Opened clamp from container.			
11. Allowed 150 - 200 ml to run in.			
12. Closed clamp.			
13. Opened clamp to drainage receptacle.			
14. Allowed fluid to drain, noting amount of flatus expelled			
15. Closed clamp.			
16. Continued procedure for total amount of fluid.			
17. Cleaned and positioned patient.			
18. Removed, cleaned and replaced equipment.			

Date:____________ Credit:______

Instructor:____________________ Needs more practice:_____

Practice Problems:

1. Give 12 mg of morphine from a solution marked 'morphine gr 1/4 in 1 ml. How many ml are required?
2. How many tablets are required to give codeine sulfate 0.064 Gm. from codeine sulfate tablets 0.032 Gm.
3. How many 200 mg tablets must be given if the order is for 0.6 Gm.?
4. You are to give 0.2 Gm of a certain drug from a solution marked '50 mg in 1 ml.' How many ml must you give?
5. You want to give atropine sulfate gr 1/300 from 0.4 mg tablets. How many should you give?
6. Give digoxin 0.125 mg from digoxin tablets 0.25 mg. How many tablets should you give?
7. A vial of codeine is labeled 'gr. 1 in 1 ml.' How many ml are required if the order is for codeine 90 mg.
8. Give morphine sulfate gr 1/8 from a solution marked 'gr. 1/4 in 1 ml.'
9. The order is for thiamine 0.05 Gm. IM and you have an ampule that reads '100 mg per ml.' How much is required?
10. Give gr 1/6 of Pantopon from an ampule marked '1/3 gr in 1 ml.'
11. A vial of penicillin labeled 1,200,000 units in 3 ml is available. How many ml are required to give the patient 600,000 units.
12. You want 250 mg of ampicillin and have a vial labeled 0.5 Gm in 2 ml. How many ml are required?
13. Codeine tablets gr 1/2 are available. How many are required to administer 15 mg.
14. How many 0.06 mg atropine sulfate tablets are needed if the order is for atropine sulfate gr 1/100?
15. Give 75 mg of meperidine from a container labeled '100 mg in 2 ml.' How many ml of the solution is required?
16. You are to administer Demerol 75 mg from a container marked '100 mg/2 ml. How many ml are required?
17. You need Sparine 35 mg from a container marked 50 mg per 2 ml. How many ml are required?
18. You want atropine gr 1/200 from a container containing gr 1/150 per ml.
19. You are to give Vistaril 25 mg and have available Vistaril 100 mg per 2 ml. How many ml should you give?
20. How many 0.1 mg tablets would you give if the order were for Synthroid 0.3 mg.?

21. The order is for atropine 0.6 mg. You have a vial marked gr 1/150. per ml. How much should you give?

22. You are to give Tigan 35 mg from a vial marked 200 mg per 2 ml.

23. If an order is for codeine gr ss, how many 15 mg tablets are needed?

24. The order is for Pantopon gr 1/6. You have a vial marked gr. 1 in 1 ml. How many ml are required?

25. You are to give 3 mg p.o. of Decadron from 0.5 mg tablets. How many tablets are needed?

NUR 122

CREDIT BY EXAMINATION

PACKET

BROOKDALE COMMUNITY COLLEGE

NUR 122 CREDIT BY EXAMINATION PACKET

This packet contains the course outline for NUR 122 which you are requesting to challenge.

Look over every part. You may use the fundamentals text required in the course or any basic fundamentals text to review the material. Various types of audio-visual materials are used and are highly recommended for your review. They are listed under SF or LP, Recommended Learning Experiences.

The theory part of the examination is taken first. After successful completion of the written examination you are scheduled for the procedures exam in the college lab. See enclosed College Laboratory Evaluation outline and list of NUR 122 skills. You are welcome to schedule practice sessions in our College Lab prior to testing. You will be scheduled for two hospital experiences as the clinical practicum for the third part of the examination.

Each part of the examination must be passed before you can proceed to the next part.

Lab coats will be worn over your regular uniforms for the clinical practicum and over regular clothes while in the College Lab.

BROOKDALE COMMUNITY COLLEGE

NUR 122 CREDIT BY EXAMINATION OBJECTIVES

The following objectives provide you with a guide to prepare for the written examination for this course.

Review and/or study each objective using the Recommended Learning Experiences to supplement your own nursing education background.

The asterik identifies those objectives which will be covered in seminar.

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
*1. UTILIZE THE NURSING PROCESS IN THE CARE OF HOSPITALIZED INDIVIDUALS.	
*1.1. List and explain the steps in the nursing process.	Lecture - Discussion. Course Packet.
*1.2. Discuss each step as it relates to the care of the individual.	Raymond, Writing Nursing Care Plans. Kozier and Erb: Chapter 12.
*1.3. Discuss the components of a nursing history.	SF 1644: The Nursing Process: An Overview SF 1643: Assessment in The Nursing Process
*1.4. Apply knowledge of Maslow, Erikson and the nursing process in a written plan of care.	SF 1642: Planning in The Nursing Process SF 1641: Implementation in The Nursing Process SF 1640: Evaluation in The Nursing Process Written nursing care plan for a hypothetical situation.
*2. COMMUNICATE THERAPEUTICALLY WITH AN INDIVIDUAL WITH PROBLEMS OF PROLONGED STRESS	
2.1. Define stress	Kozier and Erb, pp. 115 - 136. SF-1143 The Anxious Patient
2.2. List examples of "stressors."	
2.3. Describe the General Adoptation Syndrome.	
2.4. List and define the 3 stages of the G.A.S.	
2.5. Discuss the physiological and psychological signs of increased stress.	Handout: "Schema of Erickson", "Individual Response to Need Deprivation Throughout the Life Cycle."

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
2.6. Discuss the major physiological adaptation mechanisms.	
2.7. Discuss the psychological adaptation mechanisms (define mechanisms).	
2.8. Formulate nursing approaches aimed at assisting people to adapt to stress.	
2.9. Discuss the five stages of illness and the significance of each stage.	Kozier and Erb, pp. 43 - 54.
2.10. Discuss the relationship of mental health and the stress of surgery.	Kozier and Erb, pp. 878 -879. Stephenson, "Stress in the Surgical Patient", A.J.N, 77: 1809 - 1811, Nov. 1977.
3. COMMUNICATE THERAPEUTICALLY WITH A PERSON WHO IS EXPERIENCING THE GRIEF PROCESS.	
3.1. Define grief.	Fishel, Anne Grief and Mourning Self Instruction Package.
3.2. Define mourning.	Kozier and Erb, pp. 311 - 815.
3.3. List examples of losses that may occur throughout the life cycle.	
3.4. Name and describe the phases of grief and mourning.	King, J. M. "Denial" A.J.N. 66: 1010 May 1966.
3.5. Describe behaviors which are typical of each phase of grief and mourning.	Engel, G. I. "Grief and Grieving" A.J.N. 64: 93 - 98, Jan. 1964.
3.6. Formulate specific nursing approaches for each phase of grief and mourning.	
4. COMMUNICATE THERAPEUTICALLY WITH PERSON WHO IS EXPERIENCING HIS/HER OWN IMPENDING DEATH.	
4.1. Discuss the meaning of death.	Kozier and Erb, pp. 816 - 818.
4.2. Discuss coping mechanisms used by the patient, the family and the nurse.	SF-1310 Psychological Reactions of Dying Persons
4.3. List the signs which are indication of impending death.	
4.4. Discuss the special needs of infants, children and adolescents who are dying.	
4.5. Formulate nursing approaches aimed at the emotional care of the dying patient.	SF-1312 Guidelines for Interacting with a Dying Person. SF-273 Care of Dying Patients.

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
4.6. Identify agencies policies and procedures relating to: critical status last rites pronouncing the person dead releasing body from the hospital notification of family "no code"	Agency Policy and Procedure Book
4.7. Articulate the nurses role when a patient has ceased to breathe.	
4.8. Describe care of a body after death.	
*5. COMMUNICATE THERAPEUTICALLY WITH A PERSON WITH THE CHALLENGE OF AN ALTERED BODY IMAGE.	
*5.1. Discuss the concept of body image.	Kozier and Erb, pp. 815 - 816. Phipps, et al. pp. 512 - 519.
*5.2. List some examples of alterations in body image.	
*5.3. Describe the adjustment process and behaviors typical of a person with an altered body image.	
*5.4. Formulate nursing approaches appropriate for us with a client attempting to adjust to an altered body image.	Corbeil, M., "The Nursing Process for a Patient with a body image disturbance." Nursing Clinics of North America 6: 155 - 163 March 1971.
*5.5. Discuss techniques for working with family members to meet the client's needs.	
*6. ASSESS AN INDIVIDUAL'S OXYGEN STATUS USING METHODS LISTED ON CLINICAL ASSESSMENT GUIDE.	
6.1. Name and describe abnormal breathing patterns, breath sounds, and chest movement.	Text Kozier pp. 240 - 264; 664 - 670 Phipps pp. 929 - 941 pp. 369 - 370
6.2. Describe abnormal respiratory secretions.	Campus Lab AHA Blood pressure technique Apical/Apical-Radial pulse Leg Blood Pressure
6.3. Name and describe types of coughs	
*6.4. Define hypoxia	Clinical Lab Use of Assessment Guide
*6.5. List and describe effects of hypoxia.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
9. IMPLEMENT THE FOLLOWING NURSING APPROACHES THAT HELP MAINTAIN OPTIMUM RESPIRATORY AND CIRCULATORY FUNCTION: POSITIONING HYDRATION DEEP BREATHING AND COUGHING MANAGEMENT OF THE ENVIRONMENT ENCOURAGEMENT OF APPROPRIATE HEALTH PRACTICES.	Lecture Discussion Text Kozier pp. 670 - 671 Phipps pp. 372 - 373 pp. 376 (pre-operative Nursing approaches) Phipps pp. 404 - 406
9.1. Describe the techniques or strategies for each of the above.	Campus Lab Demonstration, practice and testing: Deep breathing and Coughing
*9.2. Explain the scientific principles for each of the above.	Clinical Lab Appropriate patient assignment for practice of nursing approaches; Formulation of a written plan of care.
*9.3. Identify common situations in which these nursing approaches are appropriate.	LPS
9.3.1. Discuss the need and technique for deep breathing lend coughing in the post-operative patient.	
9.3.2. Explain the rationale for removing make-up and nail polish prior to surgery.	
10. IMPLEMENT THE FOLLOWING MEDICALLY DELEGATED TECHNIQUES AND THERAPIES FOR PROBLEMS OF OXYGENATION: OXYGEN ADMINISTRATION NASOPHARYNGEAL AND OROPHARYNEAL SUCTIONING BLOW BOTTLES COLLECTION OF SPUTUM SPECIMEN ARTIFICIAL AIRWAY	LECTURE DISCUSSION TEXT Kozier pp. 676 - 687 Non Print Media
*10.1. Explain the therapeutic rationale for each of the above.	Campus Lab Demonstration practices and testing-Nasopharyngeal and Oropharyngeal suctioning.
10.2. Describe techniques for suctioning blow bottles, and specimen collection.	
*10.3. Explain technical principles for each of the above.	Clinical Lab Appropriate patient assignment for the practice of techniques as available. LPS/handouts Oxygen administration Nasopharyngeal Suctioning

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
*10.4. State the properties of Oxygen. 10.5. Name and describe various methods of oxygen administration. 10.6. Identify nursing responsibilities for each type of oxygen administration. 10.7. Explain the purpose of oxygen humidification. *10.8. Discuss typical nursing judgements associated with suctioning and prn orders for oxygen.	
*11. EXPLAIN TO PATIENTS THE FOLLOWING DIAGNOSTIC/THERAPEUTIC PROCEDURES: a. Flouruscopy b. Chest x-ray Tomography scans c. Rhinoscopy d. Laryngoscopy e. Bronchoscopy f. Postural Drainage g. Humidification	Text Phipps pp. 929 - 941
* 12. IMPLEMENT APPROPRIATE NURSING APPROACHES FOR SHOCK, BLEEDING OR HEMORRHAGE 12.1. Name and locate the major pressure points. 12.2. Identify approaches to counteract hemorrhage. 12.3. Differentiate between evident and concealed hemorrhage. * 12.4. List classifications of shock. * 12.5. Define irreversible shock. * 12.6. Explain and identify four indications of irreversible shock. * 12.7. Name and compare the types of shock. 12.8. Identify general approaches appropriate in emergency situations.	Lecture/Discussion Texts: Phipps pp. 214 - 222 pp. 426 - 427 Advanced First Aid ARC pp. 56 - 64; 232 - 233 Phipps pp. 388 - 393 Non Print LP's Introduction to Shock (R. Traugot) Handout Cardiovascular Drugs

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
12.9. Identify the purposes for and functions of the Recovery Room.	
12.10. List the immediate nursing approaches for the patient who has just arrived from the Recovery Room.	
* 13. ADMINISTER SELECTED DRUGS THAT HELP IMPROVE AN INDIVIDUALS OXYGEN STATUS: OBSERVE INDIVIDUALS FOR POSITIVE AND NEGATIVE RESPONSES TO DRUG THERAPY.	Lecture/Discussion Handouts: Respiratory System Drugs Cardiovascular Drugs
*14. EVALUATE THE INDIVIDUAL'S RESPONSES TO NURSING APPROACHES AND MEDICAL THERAPIES RELATED TO OXYGEN NEED: MODIFY NURSING APPROACHES BASED ON EVALUATION.	Clinical Lab Post conference discussion Written Nursing Care Plan evaluation and plans for modification.
*15. REPORT AND RECORD USING APPROPRIATE STYLE AND VOCABULARY - THE OBSERVATIONS, NURSING CARE, AND INDIVIDUAL RESPONSES TO CARE, RELATED TO OXYGEN NEED.	Clinical Laboratory Discussion and review of nurses notes.
*16. DEVELOP NURSING DIAGNOSES SPECIFYING ACTUAL OR POTENTIAL PROBLEMS IN AN INDIVIDUAL'S ACTIVITY, EXERCISE, STIMULATION, REST AND SLEEP.	Lecture Discussion Clinical Lab Pre conference discussion Formulation of a Written Nursing Care Plan.
*16.1. Name common actual/potential problems experienced by individuals that result in unsatisfied activity, exercise, stimulation, rest, and sleep needs.	Text: Kozier p. 511 pp. 557 pp. 563 - 567 pp. 573 - 579
*17. SELECT NURSING APPROACHES APPROPRIATE TO AN INDIVIDUAL'S SITUATION WITH REGARD TO ACTIVITY, EXERCISE, STIMULATION, REST, AND SLEEP.	Clinical Lab Pre conference discussion Written nursing care plan. See objectives 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16
13. IMPLEMENT NURSING APPROACHES TO PROMOTE OPTIMUM ACTIVITY NEED SATISFACTION - AND TO PREVENT COMPLICATIONS OF IMMOBILITY	Lecture Discussion Text Kozier pp. 511 - 532 pp. 539 - 559
18.1. Explain the psychologic, social, and physical effects of immobility	Clinical Lab Assignment to patients on bed rest as available.

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
*18.2. Discuss the relationship between activity and oxygen need.	Assignment to patients at risk for the complications of immobility.
18.3. List nursing approaches used to prevent the complications of immobility.	
18.4. Discuss the activity and exercise requirements of the post operative patient.	
19. PROVIDE ACCURATE INFORMATION ABOUT PHYSICAL FITNESS TO INDIVIDUALS: PROVIDE KNOWLEDGEABLE SUPPORT TO INDIVIDUAL'S PARTICIPATING IN PHYSICAL FITNESS ACTIVITIES.	Lecture/Discussion Text Kozier pp. 551 - 552
19.1. Discuss the physiologic effects of exercise.	
19.2. Define the functional components of fitness.	
*20. EVALUATE AND RECORD OBJECTIVE AND SUBJECTIVE DATA RELATED TO THE PAIN EXPERIENCED BY AN INDIVIDUAL:	Lecture/Discussion
20.1. Prepare a list of factors to consider in evaluating pain	Text Kozier pp. 580 - 584 Phipps p. 410 Handout: Pain Profile
* 20.2. Describe the physiological and psychological effects of pain - and their impact upon the needs for activity, exercise, rest and sleep.	Clinical Lab Assign to patients in pain as available. Non Print SF-737 - Pain: Nursing Action - Part I SF-738 - Pain: Nursing Care of a Patient in Pain SF-343 - Physiological and Emotional Aspects of Pain
* 20.3. Discuss theories of pain.	
* 20.4. Identify individual and developmental, variations with regard to the perception and response to pain.	
20.5. Define pain threshold.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
21. IMPLEMENT NURSING APPROACHES TO HELP RELIEVE PAIN AND DISCOMFORT	Lecture/Discussion
21.1. State methods of mechanical pain management.	Text Kozier pp. 585 - 588 Phipps pp. 410 - 411
21.2. List supportive nursing approaches that minimize pain and discomfort.	Clinical Lab Relevant experience as available
21.3. Discuss pain management for the post-operative patient.	Non Print See objective 14
*22. ADMINISTER, AND EVALUATE INDIVIDUAL RESPONSES TO MEDICALLY PRESCRIBED NARCOTIC AND NON NARCOTIC ANALGESIC DRUGS.	Lecture/Discussion
22.1. Discuss nursing judgements related to the administration of PRN medications.	Text Loebl pp. 349 - 372 Phipps pp. 377 Phipps pp. 378 - 336 Assignment Preparation of Drug Cards
22.2. Discuss factors to include in a teaching plan for individuals on PRN analgesics.	
*22.3. Identify actions side effects, contraindications and nursing implications for analgesic drugs.	
23. IDENTIFY AND EXPLAIN TYPES OF ANESTHESIA.	
23.1. Identify the actions, side effects, contraindications and nursing implications for drugs most often used as pre-operative medications.	
*24. EVALUATE THE INDIVIDUAL'S RESPONSE TO NURSING APPROACHES RELATED TO ACTIVITY, EXERCISE STIMULATION, REST AND SLEEP NEEDS; Modify Nursing Approaches As Indicated	Clinical Lab Post conference discussion Written Care Plan
*25. REPORT AND RECORD USING APPROPRIATE STYLE AND VOCABULARY THE OBSERVATIONS, NURSING CARE AND INDIVIDUAL RESPONSES TO CARE RELATED TO ACTIVITY, EXERCISE, STIMULATION, REST AND SLEEP.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
26. ASSESS AN INDIVIDUAL'S FOOD AND FLUID SATISFACTION LEVELS	Lecture/Discussion Text Kozier and Erb, Chapter 25 and p. 103 Williams, Chapter 2, 3, 4, 5, 6, 7, 8, 11, 12, 13, 16, and 18.
26.1. Discuss common nutritional problems (i.e. fads, obesity, anorexia, malnutrition)	Complete: Diet Study Review A-V Materials SF 746 Fluid Balance SF 748 Electrolyte Balance LP 2258 Flunctions of Electrolytes Review: Erikson Handouts: 1. Summary of Deficiency Diseases 2. Summary of Selected Vitamins 3. Summary of Essential Minerals
26.2. Discuss the role of nutrition to the pre-operative patient.	Review SF 746 - Fluid Balance SF 748 - Electrolyte Balance LP 2258 - Functions of Electrolytes SF 251 - Body's Regulation of Acid-Base Balance SF 252 Compensation
26.3. Describe the common electrolyte imbalances involving sodium (NA) potassium (K), calcium (CA) & magnasuim (Mg)	
*26.4. Describe the respiratory & metabolic imbalances of acidosis and alkalosis	
26.5. Discuss common means by which water and electrolyte are gained and lost.	Text: Kozier & Erb, Chapter 29 Handouts: 1. Fluids & Electrolytes 2. Fluid & Electrolyte Disturbances
26.6. Identify the fluid compartments of the body	
26.7. Describe important observations used for your nursing assessment of need satisfaction levels.	
26.8. List normal daily fluid requirements for children and adults	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
27. USING THE NURSING PROCESS, DEVELOP NCP FOR INDIVIDUALS WITH PROBLEMS OF NUTRITION SATISFACTION.	Clinical Lab: 1. pre & post conference 2. care of selected patients Review SF 97 Intake and output I & II LP 1129 Basic Intake & Output
28. ASSIST WITH PARENTERAL REPLACEMENT OF FLUIDS AND ELECTROLYTES, IE. IVs, TRANSFUSIONS.	Lecture/Discussion Handout: Calculating IV flow rate
*28.1. Discuss nursing principles related to IV replacement therapy.	College Lab: Demonstration & practice 1. Management of IV Therapy 2. I & Clinical: Care of selected patients.
*29. ADMINISTER NURSING CARE TO INDIVIDUAL'S WITH ELIMINATION PROBLEMS.	
29.1. Identify measures to encourage elimination	
*29.2. Describe scientific principles involved in bladder irrigation and drainage of urine.	
29.3. Discuss the classifications of laxatives and cathartics.	Text: Loebl
29.4. Discuss the rationale for nursing measures such as voiding pre-operatively and enemas.	
29.5. Describe the urinary needs of the post-operative patient.	
*30. REPORT AND RECORD, USING APPROPRIATE STYLE AND VOCABULARY, THE OBSERVATIONS, NURSING CARE AND INDIVIDUAL RESPONSE TO CARE.	
31. PARTICIPATE IN THE PROMOTION OF NEED SATISFACTION OF A MOTHER AND FETUS.	
31.1. Identify the physiologic changes which occur in the mother during pregnancy.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
31.2. Describe the development of the fetus during each trimester.	
*31.3. Identify common problems of need satisfaction during pregnancy.	
*31.4. Discuss the role and function of the family in contemporary society.	
*31.5. Discuss the impact of Pregnancy on the family.	
*31.6. Discuss the contemporary approaches to the family for the preparation of child birth.	
32. UTILIZE THE NURSING PROCESS IN THE PROMOTION OF NEED SATISFACTION OF A FAMILY DURING LABOR AND DELIVERY.	
32.1. Describe the physiologic changes that occur in the mother during labor and delivery.	
32.2. Explain the maternal and fetal need for safety and security, oxygen, nutrition, elimination, activity and rest.	
32.3. Discuss how common complications of labor and delivery can interfere with need satisfaction of mother and fetus.	
32.4. Explain the immediate needs of the newborn.	
32.5. Explain the process of bonding as it relates to the need for love and belonging.	
33. UTILIZE THE NURSING PROCESS IN PROMOTION OF NEED SATISFACTION DURING THE POST PARTUM PERIOD.	
33.1. Explain how physiologic needs of the mother are altered during the post partum period.	
*33.2. Define and explain a functional assessment of the mother.	
33.3. Identify common problems in the basic needs occuring in the mother during the post partum period.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
34. UTILIZE THE NURSING PROCESS IN THE PROMOTION OF NEED SATISFACTION OF THE NEONATE.	
34.1. Explain the physiologic changes of the neonate during the adjustment to extra-uterine environment.	
*34.2. Define and explain a functional assessment of the neonate.	
34.3. Identify the specific needs of the neonate.	
34.4. Explain the effects of common problems of need satisfaction during the neonatal period.	

BROOKDALE COMMUNITY COLLEGE

NUR 122 CREDIT BY EXAMINATION

SKILLS LIST

SKILL LIST:

You are responsible for all the following; those with an asterik, you will be required to practice and test out on in the College Lab.

NUR 122

- Post mortem care
- * Parenteral Medications
    - mixing two medications
    - Z tract injection
- * Oxygen administration
    - cannula/catheter; other
- * Oro-pharyngeal suctioning
- * Intravenous therapy
    - calculating drip factor
    - adding vitamins and drugs
    - adding a new bottle
    - discontinuing I.V.
    - removing gown with I.V.
    - monitoring I.V.
    - discontinuing therapy
    - preparing for or assisting with starting
- * Bandaging
    - ace bandages
    - antiembolitic stockings
- * Dressings
    - dry sterile
    - abdominal binders
    - assisting with dressing
    - contaminated dressing
    - wound irrigation
- * Pre-operative preparation
    - skin prep
- Sitz bath

BROOKDALE COMMUNITY COLLEGE

SKILL MASTERY LIST

NURSING 122

STUDENT'S NAME:________________________________ INSTRUCTOR:____________________

DIRECTIONS TO INSTRUCTOR: DATE:_________________________

When checking each student for skills listed below, please use the critical criteria as a base for satisfactory or unsatisfactory performance.

SKILL	CLINICAL PERFORMANCE		
	S	U	COMMENTS
PARENTERAL MEDICATIONS			
1. Z Track			
BANDAGING			
1. applying an ace bandage			
2. applying andiembolic stockings			
3. applying sling			
4. applying abdominal binders, T-binders			
DRESSINGS			
1. dry sterile			
2. changing a contaminated dressing			
3. wound cleansing			
4. wound irrigation			
PREOPERATIVE PREPARATION			
1. skin prep			
POSTOPERATIVE			
1. sitz bath			
INTRAVENOUS THERAPY			
1. preparing for and/or assisting with I.V. therapy and transfusion			
2. calculating drip factor			
3. adding vitamins and/or electrolytes			
4. adding new bottle			
5. discontinuing I.V.			
6. removing gown with I.V. in place			
7. monitoring I.V.			
8. monitoring transfusion			
OXYGEN ADMINISTRATION			
1. cannula			
2. catheters			
3. mask-3 types			
4. tent			
5. incentive spirometory			

SKILL	CLINICAL PERFORMANCE		
	S	U	COMMENTS
ORO-PHARYNGEAL SUCTIONING			
POST MORTEM CARE			

EVALUATION CHECK LIST: INTRAMUSCULAR INJECTION: Z-TRACK

	S	U
Wash hands and assemble equipment		
Withdraw medication according to proper procedure		
If a 1½ inch needle is used, withdraw 0.2 cc air; If a 2 or 3 inch needle is used, withdraw 0.5 cc air		
Identify patient and explain procedure		
Select and prepare injection site		
Pick up syringe, replace needle, and retract skin laterally		
Insert needle at 90 degree angle, pull back on plunger, and observe patient		
Inject medication slowly, while still retracting skin, and wait 10 seconds		
Remove needle quickly, release skin, apply light pressure, DO NOT MASSAGE		
Leave patient safe and comfortable		
Discard equipment as per agency policy		
Record medication administration according to proper procedure		

Credit: ______________________ (Instructors Signature)

Deferred Credit: ______________________ (Date)

BROOKDALE COMMUNITY COLLEGE

NURSING 122

Changing Dressings for the Patient with a Wound Infection:

CRITICAL REQUIREMENTS	YES	NO
1. Washes hands prior to gowning		
2. Gown Technique - NOT "REUSE" method		
a. Before gowning, removes rings and watch		
b. Applies gown so that back overlaps uniform completely		
c. Ties neck ties first		
d. Ties waist ties		
e. Dons gloves		
3. Changes dressing as previously learned paying SPECIAL attention to proper disposal of soiled dressing		
4. Care of linens, if soiled. Places linens into special bag inside room marked "ISOLATION" or color coded, depending on institution		
5. Removal of gloves and disposal into container for "ISOLATION garbage		
6. Removal of Gown		
a. Unties waist ties		
b. Washes hands		
c. Unties neck ties		
d. Removes gown without touching outside and places it into linen bag "ISOLATION"		
e. Repeats hand washing - proper use of towels on faucets is vital		
f. Leaves room		
7. Charts appropriately, including all necessary observations		

EVALUATION CHECK - LIST: SURGICAL DRESSINGS

PERFORMANCE

	YES	NO	REMARKS
Explains to patient			
Checks to determine what will be needed			
Washes hands			
Assembles necessary equipment			
Opens tray			
Avoids contaminating sterile field			
Uses sterile forceps to arrange articles Tips pointing down			
Drops other materials as necessary			
Pours liquid properly			
Cleans lip of stock bottle by pouring some solution into sink			
Holds bottle well above container Avoids spilling			
Re-covers tray carefully			
Gathers unsterile articles			
Brings equipment to room			
Provides privacy			
Positions patient			
Loosens old dressing			
Pulls tape gently			
Pulls toward wound			
Washes hands			
Uses forceps to remove soiled dressing			
Places dressing in paper bag			

	YES	NO	REMARKS
Sets used forceps aside			
Cleanses wound with damp cotton ball			
Uses fresh forceps			
Starts at center and works out			
Discards cotton ball after each stroke			
Avoids touching skin with forceps			
Places fresh dressing over wound			
Secures dress in place			
Covers and removes soiled dressing material			
Makes patient comfortable			
Disposes of equipment appropriately			
Charts correctly			
Sterile gloves			
Picks up first glove near fold			
Slides glove over other hand			
Picks up second glove by sliding fingers of gloved hand under cuff			
Slides ungloved hand into glove			
Snaps cuffs upon wrist			
Adjusts fit at fingers			

BROOKDALE COMMUNITY COLLEGE
ALLIED HEALTH CENTER
NURSING 122

Learning Package 111 - 9. Unit V Application of binders and Bandages.

Prior to being evaluated on these skills, you should:

1. Complete the reading assignment for the unit in order to understand and be able to answer questions on the principles underlying these skills.
2. Complete the learning package.
3. Practice the skills in the lab with the assistance of the lab instructor until you feel competent.

Before beginning theis package, obtain the following from the lab:

1. Film strip #10. Transfer activities and ambulation.
2. Film strip #4. Application of binders and bandages.
3. Film loop #9. Binder application.
4. A scultetus binder, a sling and an ace bandage. (elastic).

You will need to supply:

1. A small note book or paper to take notes.
2. A partner with whom to practice. (You will need an extra partner for ambulation).

OBJECTIVES:

1. Demonstrate transfer activities of a patient from bed to wheel chair.
2. Demonstrate ambulation of a patient.
3. Demonstrate proper application of a scultetus binder, a sling and an ace bandage to ankle, e.g. hand and arm.

INSTRUCTIONS:

1. View film strip #4, 10 and film loop #9. Make notes as you watch the strips. Discuss questions with your partner. Be sure to ask your instructor any questions that you are not able to answer.
2. Practice ambulating a patient in the college lab.
3. Practice applying binders and bandages in the college lab with your partner.
4. Complete the post test using all references available to you. Ask your instructor if you have any questions.
5. When you feel competent in performing these skills, plan for an instructor to check you in the college lab.

POST TEST: Ambulation and Binders and Bandages.

1. What precautions must be used to protect a patient on a stretcher?

2. What are two difficulties a patient may encounter the first time he tries to get out of bed?

3. What precautions should be taken to protect the patient?

4. What additional precautions should be taken in assisting a patient into a wheelchair?

5. Give four reasons for the use of bandages:

6. Give five general principles in the application of a roller bandage.

7. How can you tell whether a bandage is too tight?

8. What is the purpose of elastic bandages applied to the legs?

EVALUATION CHECK LIST: BINDERS AND BANDAGES.

	S	U	NA
Elastic bandage:			
Applies bandage from extremity toward trunk.			
Anchors bandage by complete turn around part.			
Each turn overlaps previous turn by 1/2 to 1/3 of its width.			
Bandage smooth and firm.			
Fastens securely over soft, healthy tissue.			
Scultetus binder:			
Have patient lie on back over center section of binder.			
Binder well down under hips.			
Begins wrapping at lower edge.			
Bandage smooth and firm.			
Fastens last tail with safety pin.			
Sling:			
Applies sling following learned principles.			
Fingers of hand higher than elbow.			
Knot at the side of the neck.			
Patient is comfortable following application.			

Credit:------------- Deferred Credit:---------

BROOKDALE COMMUNITY COLLEGE
NURSING 122

Critical Criteria - Check List
Respiratory Tract Aspiration - based on A.J.N. Programmed Instruction and SFS #741 - "Pharyngeal Suctioning"

	Yes	No	Remarks
1. Encourages fluid intake, if possible.			
2. Explains procedure to patient.			
3. Gathers all necessary equipment:			
a. suctioning tray			
b. obtains water or saline, depending on area to be suctioned.			
4. Checks equipment:			
a. wall suction for proper readings (setting) - 100-140mm Hg.			
b. portable or gomco set at between 7-15 inches of Hg.			
5. Positions patient - sitting up.			
6. Places towel across chest.			
7. For nasal suctioning:			
a. opens tray aseptically.			
b. applies glove on one hand.			
c. removes catheter and pours saline into basin.			
d. turns on suction and checks for catheter patency.			
e. with thumb off vent, inserts catheter into nostril approx. 6 inches.			
f. applies intermittent pressure on vent with ungloved thumb.			
g. with gloved hand, rotates catheter outward.			
*h. suctioning is done ONLY while catheter is being WITHDRAWN, not while being inserted.			
*i. suctioning is continued for a MAXIMUM OF 10 to 15 second with a 2 to 3 minute rest period between.			
*j. discards entire tip after each suctioning session.			

Learning Experiences - Cont'd.

Check List - Respiratory Tract Aspiration - Cont'd.

	Yes	No	Remarks
8. For oral suctioning:			
a. uses sterile catheter, emesis basin and tap water.			
b. procedure for use is the same as for nasal suctioning.			
c. enters mouth along cheek and toward back of mouth - 5 to 6 inches.			
9. Charts accurately.			

BROOKDALE COMMUNITY COLLEGE

NURSING 122

Learning Experiences - Cont'd.

Check List - Administration of Oxygen

	Yes	No	Remarks
1. Is able to identify:			
a. nasal catheter			
b. nasal canula			
c. mask			
d. liter gauge			
e. humidifier			
2. Knows the proper liters per minute for each of the above (1a, 1b, 1c).			
3. Turns on oxygen before administering to patient.			

BROOKDALE COMMUNITY COLLEGE

Nursing 122

Critical Criteria (Checklist)
Intravenous Therapy, Blood Transfusions, Intake and Output

	Yes	No	Remarks
1. Sets up completely for: a. an I.V. b. a transfusion			
2. Calculates correct rate of flow for a given period of time.			
3. Is able to regulate the correct number of drops using the I.V. equipment.			
4. Correctly assists in the initiation of: a. an I.V. b. a transfusion			
5. Demonstrates ability to change I.V. fluid flasks.			
6. Correctly charts above procedures on Nurses' Notes.			

BROOKDALE COMMUNITY COLLEGE

Nursing 122

Critical Criteria (Checklist)
Intravenous Therapy, Blood Transfusions, Intake and Output

	Yes	No	Remarks
1. Sets up completely for: a. an I.V. b. a transfusion			
2. Calculates correct rate of flow for a given period of time.			
3. Is able to regulate the correct number of drops using the I.V. equipment.			
4. Correctly assists in the initiation of: a. an I.V. b. a transfusion			
5. Demonstrates ability to change I.V. fluid flasks.			
6. Correctly charts above procedures on Nurses' Notes.			

Advanced Placement

NUR 122

Clinical Objectives

Assignment will be made to a patient with common problems of need satisfaction.

You will use the hierarchy of basic human needs as a guide to:

1. Assessing the patient's total need satisfaction
2. Identifying the problems of need satisfaction in this patient
3. Developing a NCP, including sociocultural and developmental differences, using all steps of the Nursing Process.
4. Implementing appropriate nursing approaches, including
    - administering all medications
    - performing any prescribed treatments (IVs, dressings, catheterizations)
5. Evaluating the patients' response to your plan of care
6. Modifying the plan, if indicated.
7. Documenting nursing data in appropriate language
8. Reporting pertinent data promptly to the appropriate staff member

BROOKDALE COMMUNITY COLLEGE
Clinical Behavioral Objectives Evaluation
for
NUR 122 Advanced Placement Credit

Student's Name: ______________________ Semester: ______________________

Instructor: ______________________ Date: ______________________

Objective	S	U	Comments
I ASSESSMENT			
1. Explains verbally and/or in writing the challange that causes problems of need satisfaction.			
2. Uses the critical criteria assessment sheet for each unit when assessing patient problems.			
3. Collects data in order to assess patient centered problems of need satisfaction, utilizing available resources: Patient, family, health team members, texts, hospital formulary and chart. 3.1 communicates effectively with patient, family, and health team members. 3.2 scans chart effectively and lists need deficits. 3.3 identifies overt and/or nonverbal manifestations of stress. 3.4 interprets written information and verbal directions correctly.			
4. Analyzes data with assistance.			
5. Identifies patient centered problems.			
6. Formulates a nursing diagnosis.			

Objective	S	U	Comments
II **GOAL SETTING**			
1. Establish realistic goals, considering individual differences, life style, age, sociocultural and economic factors. 1.1 use "short-term" and "long-term" goals 1.2 establish patient centered goals			
III **PLANNING**			
1. Consistently outlines an effective plan of care to achieve stated goals.			
2. Documents cultural and developmental differences as a basis in planning nursing care.			
3. Establishes priorities with assistance, in nursing intervention after assessing the problems of need satisfaction.			
4. Prepares drug information cards, in prescribed form, for medications indicated in patients assessment.			
5. Recognizes limitations in own abilities and seeks guidance from instructor when necessary.			
6. Prepares appropriate diet cards in prescribed form for diets identified in patient assessment.			
7. Selects appropriate nursing approaches in plan of care.			
8. Documents nursing principles for selected nursing approaches.			

Objective	S	U	Comments
IV **IMPLEMENTATION OF PLAN**			
1. Implements care using formulated care plan.			
2. Establishes a therapeutic environment with assistance.			
3. Acts to prevent accidents and injury to patients, personnel and self.			
4. Implements safety precautions in giving patient care. 4.1 oxygen 4.2 new born			
5. Verifies identity of patient before initiating therapeutic action.			
6. Implements medical asepsis and surgical asepsis when indicated.			
7. Meets the critical criteria when implementing nursing skills.			
8. Involves appropriate members of the health team in order to render maximal care.			
9. Initiates independent nursing action consulting with instructor.			
10. Reports pertinent information elicited from patient to appropriate members of the health team.			
11. Documents nursing data that reflects patient centered problems in accurate, concise manner, using appropriate language.			

Objective	S	U	Comments
12. Prepares and administers medications utilizing appropriate nursing principles.			
V EVALUATION OF PLAN			
1. Lists patient's responses to nursing intervention in order to determine the effectiveness of care.			
2. Modifies plan of care after assessing effectiveness of goals.			
VI PERSONAL QUALITIES			
1. Reports to clinical lab on time.			
2. Writes an appropriate plan of nursing care.			
3. Displays initiative and enthusiasm.			
4. Completes nursing assignment in alloted time.			
5. Accepts and profits by constructive criticism.			
6. Is able to carry out assigned skills fulfilling critical requirements.			
7. Organizes planned patient care to provide need satisfaction.			
8. Establishes objective communication with patient and family.			

Objective	S	U	Comments
9. Promptly reports any errors involving patient care.			
10. Is able to present a verbal report of nursing care in pre-post conference.			

Student's Signature ______________________________

Date ______________________________

Comments ______________________________

____

Instructor's Signature ______________________________

BROOKDALE COMMUNITY COLLEGE

NURSING TRANSITION

COURSE DESCRIPTION

This course focuses on the role change from LPN to ADRN students completing their first year of nursing education. Emphasis will be on adjusting to the level of practice expected of registered nurses.

Refinement of your use of the nursing process and increased application of safety skills will be included.

The course consists of both classroom and clinical experience.

BROOKDALE COMMUNITY COLLEGE

NURSING TRANSITION

1 CREDIT

At the completion of this course you will be able to demonstrate:

- integration of previously learned and newly acquired knowledge and skills as a basis for your Associate Degree Nursing Practice.

and

- transition from the role of LPN to an ADRN student completing the first year of nursing education.

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
1. DEMONSTRATE AN UNDERSTANDING OF THE PHILOSOPHY OF ASSOCIATE DEGREE NURSING PRACTICE.	Lecture - Discussion
1.1. Compare and contrast educational preparation for nursing at all levels.	National League for Nursing Competencies for A.D. Nursing. Kozier and Erb: Chapters 1 and 2.
1.2. Compare and contrast the entry level competencies of nurses at all levels.	
1.3. Identify factors which have influenced the development of Associate Degree Nursing.	
1.4. Explore the role of the A.D. nurse in relation to various health care delivery systems.	
1.5. Discuss the concept of the Nurse-Client Relationship.	
1.6. Name and describe the phases of the Nurse-Client Relationship.	
2. DEMONSTRATE AN UNDERSTANDING OF THE CONCEPTUAL FRAMEWORK OF THE BROOKDALE COMMUNITY COLLEGE NURSING PROGRAM.	Lecture - Discussion Course Packet
2.1. Articulate the philosophy and objectives of the Brookdale nursing program.	Student Handbook Erikson Handout

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
3. APPLY THE PRINCIPLES OF TEACHING IN A HEALTH CARE DELIVERY SYSTEM.	
3.1. List the areas of learning with which nurses are concerned.	Kozier and Erb, pp. 425 - 435
3.2. Discuss the concept of learning	
3.3. Discuss the factors that affect learning	
3.4. Articulate the specific learning needs of clients throughout the life cycle.	
3.5. Describe the teaching process.	
3.6. Explain the assessment of an individual's learning needs.	
3.7. Discuss the stages of a planned learning experience.	Laird, M. "Techniques for Teaching Pre & Post Operative Patients", A.J.N. 75: 1338 - 40, 1975.
3.8. Describe ways to evaluate the client's understanding his condition and/or surgical procedure.	
4. DEMONSTRATE TRANSITION FROM LPN TO ADRN student.	Small group discussion Clinical performance
4.1. Discuss differences in practice on each level of nursing.	Essay
4.2. Discuss motivations for change.	
4.3. Identify stress factors associated with role change.	
4.4. Contrast "worker" with "student" role.	

BIO III

CREDIT BY EXAMINATION

PACKET

BROOKDALE COMMUNITY COLLEGE

ANATOMY AND PHYSIOLOGY LABORATORY

BONE LIST - REQUIRED

In addition to this list and accompanying guides, rely on your text and reference materials available in the LRC to complete this unit. Your laboratory practical will be written from this list only.

BONES I

Adult Skull:

Bones:

- Vomer
- Mandible
- Frontal
- Parietal
- Temporal
- Ethmoid
- Lacrimal
- Zygomatic (malar)
- Palatine
- Maxillary
- Sphenoid
- Occipital
- Nasal

Processes:

- Temporal and zygomatic portions of the zygomatic arch
- Styloid process
- External occipital protuberance
- Mastoid process
- Supraorbital margin
- Occipital condyle
- Palatine process of the maxilla

Sutures:

- Lambdoidal
- Squamous
- Coronal
- Sagittal

Foramina:

- Infraorbital foramen
- Mental foramen
- External auditory meatus
- Stylomastoid foramen
- Jugular foramen
- Incisive foramen
- Foramen Magnum
- Carotid Canal
- Optic foramen
- Hypoglossal Canal

Fossa:

- Anterior cranial fossa
- Middle cranial fossa
- Posterior cranial fossa

Mandible (Dentaries)

- Condyloid process
- Ramus
- Angle
- Body
- Mental Foramen
- Mandibular Foramen
- Mental Symphysis (mandibular symphysis)

Fetal and Infant Skull:

Bones:

- Frontal
- Parietal
- Occipital
- Nasal
- Maxillary
- Lacrimal
- Vomer
- Zygomatic
- Palatine
- Sphenoid
- Temporal
- Mandible
- Ethmoid

Foramen Magnum

Fontanelles:

- Frontal (anterior, bregmatic)
- Sphenoidal (anterolateral)
- Mastoid (posterolateral)
- Occipital (posterior)

BONES II

Hyoid Bone

Vertebrae:
- Cervicle
- Atlas
- Axis
- Thoracic
- Lumbar
- Sacral
- Coccyx

Parts of the vertebrae, wherever applicable:
- Spinous process
- Transverse process
- Articular processes
- Lamina
- Vertebral Foramen
- Transverse Foramen (cervicle)
- Body (centrum)
- Facet and demifacet for tubercle and head of ribs (thoracic)
- Sacral foramina
- Sacral Crests
- Dens or Odontoid (axis)

Sternum:
- Body
- Manubrium
- Xiphoid Process
- Costal Notches

Ribs:
- Head and articular facet
- Neck
- Tubercle and articular facet
- True ribs
- False ribs
- Floating ribs

Scapula:
- Coracoid process
- Clavicular Facet
- Acromium
- Supraspinous Fossa
- Spine
- Infraspinous Fossa
- Glenoid Fossa
- Subscapular Fossa

Clavicle:
- Acromial Extremity
- Sternal Extremity

Pelves:
- Ilium
- Ischium
- Pubis
- Crest of Ilium
- Iliac Fossa
- Public Symphysis
- Ischial Tuberosity
- Greater Sciatic Notch
- Lesser Sciatic Notch
- Obturator Foramen
- Acetabulum

BONES III

Bone Histology:

Haversian Canal
- Artery
- Vein
- Lymph
- Nerve

Volkmann's Canal
- Lamella
- Canaliculi
- Lacuna
- Osteocyte

Humerus:
- Head
- Lesser Tubercle
- Greater Tubercle
- Deltoid Tuberosity
- Lateral Epicondyle
- Medial Epicondyle
- Capitulum
- Trochlea
- Nutrient Foramina
- Olecranon Fossa

Radius and Ulna:
- Radial Notch
- Olecranon Process
- Semilunar Notch
- Coronoid Process
- Supinator Crest
- Nutrient Foramina
- Styloid Processes

Hand:
- Carpals (as a group)
- Metacarpals (first through fifth)
- Phalanges (proximal, middle, distal and first through fifth)

BONES III

Femur:

- Head
- Fovea Capitus
- Neck
- Greater Trochanter
- Lesser Trochanter
- Trochanteric Fossa
- Lateral Condyle
- Medial Condyle
- Lateral Epicondyle
- Medial Epicondyle
- Linea Aspera
- Popliteal Surface
- Intercondylar Fossa
- Nutrient Foramina

Patella:

- Articular Surfaces

Tibia and Fibula:

- Styloid (fibula)
- Malleolus (medial and lateral)
- Lateral Condyle (tibia)
- Medial Condyle (tibia)
- Intercondylar Eminence (tibia)
- Nutrient Foramina

Foot:

- Phalanges (proximal, middle, distal and first through fifth)
- Metatarsals (first through fifth)
- Tuberosity of fifth metatarsal
- Tarsals (as a group)
- Talus
- Calcaneous

BIO 111 Course No.	Anatomy & Physiology I Title	# 6 of 8 units
4 Credits		

Name of Unit: The Nervous System

Unit Objective: The student will be able to describe the structure and function of cells that constitute the nervous system; be able to discuss the basic embryology-histology and cellular physiology of the nervous system.

Method Of Evaluation:

Estimated Time To Achieve: Two Weeks

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
1. Construct and/or label diagrams showing the early development of the nervous system. Be able to define or label the following: a. neural plate b. neural groove c. neural folds d. neural crest e. primary and secondary brain vesicles	Reference Text: "Before We Are Born", by Keith L. Moore, W. B. Saunders Co., 1974, pages 196-212.
2. Using simple sketches, describe the development of the spinal cord, the dorsal root ganglia, and spinal nerves. Be able to define, label or describe the following: a. sulcus limitans b. basal plate c. alar plate d. ependymal e. mantle and marginal layers f. fissures g. gyri h. sulci	Reference Text: "Human Embryology", by Keith L. Moore, W. B. Saunders Co., 1975, pages 206-219 (a programmed study guide)
3. Diagram and label the metaplasial changes during the histogenesis of cells in the nervous system - commence with neuro-epithelium and terminate with the following cell types: a. apolar, bipolar, multipolar neuroblasts b. glioblast (spongioblast)-astroblast, oligodendroblast-oligodendrocyte, astroblast-protoplasmic astrocyte, fibrous astrocyte c. ependyma and epithelium of the choroid plexus	Lecture and/or "Before We Are Born", page 201

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
4. Classify the types of neuroglia or glial cells with respect to their morphology; indicate their histological location and state each glial cell's function.	Lecture and/or Textbook, Chapter 12
5. Identify on a laboratory model, draw and/or label a drawing of a multipolar neuron.	Lecture
6. Classify neurons according to structure and function; locate each type of neuron in the nervous system.	Lecture Textbook, pages 271-272
7. Differentiate between the properties of irritability and conductivity.	Lecture Textbook, pages 273-283
8. Name three basic parts of a neuron; state the function of each part. Differentiate between epi, endo, and perineurium.	Lecture Textbook, pages 268-271; Figure 13-8; 298, Topic Spinal Nerves
9. Discuss the conduction of an impulse by a neuron using the following terms: a. cations-sodium and potassium b. active and passive transport c. resting potential, firing potential, depolarization and repolarization, after potential d. latent period, absolute refractory period, relative refractory period and supranormal period and effective refractory periods e. transmembrane potential f. action potential g. submaximal, maximal and supramaximal stimulus h. State the cation movement that is responsible for the following: 1. resting potential 2. action potential 3. after potential i. saltatory conduction,and orthodromic and antidromic conduction j. mylinated vs. unmylinated	Lecture Textbook, pages 273-283
10. List the factors that influence the speed of conduction of the nerve impulse and explain how they influence conduction velosity.	Lecture Textbook, page 277

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
11. Discuss the anatomy and physiology of the synapse, defining and using the following terms: a. synaptic knobs (end feet) b. synaptic vessicles (Kuhn's vessicles) c. synaptic granules (Kuhn's granules) d. chemical transmitters or neurohumors	Textbook, pages 277-283
12. List at least six chemical transmitters (neurohumors) released by neurons. Be able to indicate the types of neurons that elaborate each transmitters and where the neurohumors act.	Textbook, page 280
13. Construct a chart showing the following various types of nerve fibers: the Diameter of Fiber, Velosity of Conduction, and Function & Location.	Textbook, Chapter 12
14. Name the five basic component parts of a reflex arc at cord level. Differentiate between afferent and efferent conduction at the neuron level and nerve level.	Lecture Textbook, pages 291-298 L.P. - Nerve as a Tissue
15. State the difference between a neuron and a nerve.	Textbook, pages 268-270, 287
6. Discuss the function of the enzyme acetylcholine-esterase (choline-esterase) and pseudocholine-esterase.	Lecture
17. Discuss feedback and inhibition with the neuron with respect to synthesis and metabolism of neurotransmitters. Homeostasis in the true sense of the word.	Lecture
18. Discuss regeneration of nerve fibers and the phenomena of myleniation.	Lecture
19. Complete Student Objectives on page 267 of the text.	Textbook, page 267

BIO 111
Course No.

Anatomy & Physiology I
Title

7 **of** 8 **units**

4
Credits

Name of Unit: The Central Nervous System

Unit Objective: The student will be able to identify selected parts of the central nervous system and state the function of these structures.

Method Of Evaluation:

Estimated Time To Achieve: Two Weeks

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
1. Locate on the laboratory models and/or state the location and function of the following structures: a. sulcus b. gyrus c. fissure d. sagittal fissure e. Rolando's fissure f. Sylvian fissure g. calcarine fissure h. precentral gyrus i. postcentral gyrus j. choroid plexus k. lateral ventricle l. third ventricle m. cerebral aqueduct n. foramen of Monroe o. foramen of Luschka p. foramen of Magendie q. frontal lobe r. parietal lobe s. temporal lobe t. occipital lobe u. diencephalon v. mesencephalon w. metencephalon x. myelencephalon y. cerebellus z. meninges	Textbook, pages 313-333
Note: central fissure = Rolando's fissure lateral fissure = Sylvian fissure interventricular foramen = foramen of Monro (monroe) median & lateral aperatures of fourth ventricle = foramen of magendie & foramen of Luschka	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
2. Identify and state the function of the following parts of the cerebrum:	Textbook, Chapter 14, pages 313-334
a. motor cortex	Pages 324-325
b. sensory cortex	Pages 325-326
c. association cortex	Page 325
d. special sensory cortex Brodman's areas: 17, 28, 41, 42, 43, 5, 7, 22, 57, 39, 40, 18, 19	
e. special motor cortex areas: 8, 44, 45, 40, 39, 6, 8 and Broca's areas	
f. association tracts, commissural tracts and projection tracts	Pages 321-323
g. limbic system	
h. basal ganglia	
i. lateral ventricles	
j. choroid plexi	
3. With respect to diencephalon, locate and state the function of the following:	Pages 319-320
a. third ventricle	
b. epithalmus	
c. thalmus	
d. hypothalmus	
e. hypophyseal stalk (infundibulum)	
f. pituitary gland	
Name the important nuclei of the hypothalmus and state their function.	Lecture, text pages 319-320
4. With respect to the mesencephalon, locate and state the function of the following:	Pages 326-327 and Pages 317-319
a. tectum	
b. tegmentum	
c. cerebral peduncles	
d. superior colliculi	
e. inferior colliculi	
f. red nucleus	
g. occulomotor nucleus	
h. trochlear nucleus	
i. interpeduncular nucleus	
j. tegmental nucleus	
k. brachium conjunctivium	
l. lateral cortical spinal tract	
m. ventral cortical spinal tract	
n. frontopontine tract	
o. temperopontine tract	
p. substantia nigra	
q. cerebral aqueduct	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
5. With respect to the pons, locate and state the function of the following: a. basal pons b. tegmentum c. 4th ventricle d. pyramidal tract e. pontocerebellar tract f. trigeminal nucleus g. vestibular nucleus h. facial nucleus i. abducens nucleus j. cochlear nucleus k. superior olive l. acoustic trigone	Page 317 text and Lecture
6. With respect to the cerebellum, locate and state the function of the following: a. peduncles - brachium conjunctivium, brachium pontis, restiform body b. folia, vermis - lingula - culmen - flocculus - hemispheres	Pages 321-323 and Lecture
7. With respect to the medulla, locate and state the function of the following: a. pyramid b. inferior olive c. nuclei of abducens, glossopharyngeal, vagus, accessory, hypoglossal nerves d. gracilis and cuneatus nucleus e. reticular formation f. salivatory nuclei g. cardiac centers h. respiratory centers	Pages 315-317
8. With respect to the spinal cord, locate in lab and state the function of the following for lecture exams:	Pages 287-309
a. gross structures (1) conus medularis (2) filium terminale (3) caudae equina	Page 287
b. fissures and sulci of the cord (1) ventral median fissure (2) dorsal median sulcus (3) ventral lateral sulcus (4) dorsal lateral sulcus (5) dorsal intermediate sulcus	Page 290
c. gray columns (1) posterior or dorsal gray column (2) lateral and intermedo-lateral columns (3) ventral or anterior gray columns	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
8. continued	
d. In the dorsal (posterior) column state the function of: (1) lissaures tract (2) posterior marginal nucleus (3) substantia gelatin osa (4) nucleus proprius (5) nucleus dorsalis (Clark's column)	A Functional Approach to Neuroanatomy, Pansky Pages 56-62
e. In the anterior gray column relate motor neuron location to muscle groups innervated.	
f. In the dorsal white column locate and know the function of the following tracts:	Textbook
(1) fasciculus gracilis and cuncatus	Pages 292-293
(2) posterior or dorsal spinocerebellar tract	Page 292
g. In the ventral or anterior white column be able to locate and state the function of: (1) ventral (anterior) spinothalmic tract (2) ventral (anterior) spinocerebellar tract (3) ventral (anterior) corticospinal tract (4) tectospinal tract (5) vestibulospinal tract	Page 292
h. In the lateral white column be able to identify and give the function of the following tracts: (1) lateral spinthalmic tract (2) lateral corticospinal tract (3) rubrospinal tract (4) intermedio-lateral gray column	Page 292

BIO 111
Course No.

Anatomy & Physiology I
Title

8 of 8 units

4
Credits

Name of Unit: The Autonomic Nervous System

Unit Objective: The student will understand the basic gross and microscopic structure, physiology and biochemistry of the autonomic nervous system. The autonomic nervous system is an aggregation of ganglia, nerves and plexi through which the viscera, heart, blood vessels, smooth muscles and glands receive their motor innervation. It is divided anatomically into two divisions, the craniosacral or parasympathetic system and the thoracolumbar or sympathetic system.

Method of Evaluation: Written Examination

Estimated Time To Achieve: One Week

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	Textbook pages 355-366
1. A two neuron motor chain characterizes all autonomic nerves. Locate the following components of this two neuron chain: a. Dendrites and cell body of the preganglionic neuron of the parasympathetic system.	Reference Text: "Correlative Neuroanatomy & Functional Neurology", by J. G. Chusid, 16th ed., Lange Medical Publications, Los Altos, California, 1976.
b. Axon of the preganglionic parasympathetic neuron. State if this axon is long or short and if it is myelinated or unmyelinated.	page 134
c. Name four cranial nerves that carry parasympathetic fibers.	page 136
d. Name four parasympathetic ganglia in the head and state the anatomical location of each.	pages 135 and 139
e. Locate the dendrites and cell body of the postganglionic parasympathetic neuron to the head.	pages 135 and 139
f. Locate the dendrites and cell body of nervus erigens (pelvic nerve) preganglionic parasympathetic.	page 135
g. Locate and give the function of Meissner and Auerbach plexi.	page 134
h. Name the chemical transmitter released by preganglionic and postganglionic parasympathetic neurons at synapses.	page 143
i. Name the plexus that has preganglionic parasympathetic axons from the sacral cord.	page 135
j. Locate the postganglionic parasympathetic axon.	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
2. Explain via essay the "Theory of Neurohumoral Transmission" located on page 404 of text.	Reference Text: "The Pharmacological Basis of Therapeutics", by L. Goodman & A. Gilman, 5th ed., MacMillian Publishing Co., 1975, pages 404-439
3. Differentiate between autonomic and somatic nerves.	page 404
4. Locate the integration center of the autonomic nervous system for the control of respiration and blood pressure.	page 405
5. Name eight autonomic functions that are associated with the hypothalmus.	page 404
6. With respect to the sympathetic system, locate the following:	Chusid's Text, pages 134, 136, 142, 144
a. Dendrites and cell body of the preganglionic sympathetic neuron.	page 134
b. The axon of the preganglionic sympathetic neuron. Is it long or short? Mylinated or unmyelinated?	page 134
c. The postganglionic neurons cell body and dendrites.	page 136
d. The sympathetic ganglionic chain.	page 136
e. Collateral (visceral) sympathetic ganglia.	page 136
f. Splanchnic nerves.	page 134
7. Name all the effectors innervated by postganglionic sympathetic neurons.	page 144
8. Preganglionic sympathetic neurons upon entering the sympathetic chain can synapse at four different sites; locate these four possible sites of synapse.	page 134 (Bottom left side of page)
9. Name five features all autonomic nerves have in common.	page 134
10. State at least five structural differences between parasympathetic and sympathetic nervous system.	pages 134 and 135
11. Name the chemical transmitters released by postganglionic sympathetic axons.	Goodman and Gilman's Text, page 423
12. State specific neurons or nerves that release acetylcholine at synapses or to effectors. Name several types of cholinergic fibers.	Goodman and Gilman's Text, pages 416-422

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
Be able to:	
13. Compare the following enzymes with respect to the following:	Lecture
a. Mechanism of action	
1. Acetylcholine esterase	Goodman & Gilman's Text, pages 446-449
2. Monoamine oxidase	pages 478-482
3. C.O.M.T.'s	pages 478-482
b. Substrate acted upon and products formed	
1. Acetylcholine esterase	page 417
2. M.A.O.'s	page 427
3. C.O.M.T.'s	page 427
c. Agents that block enzyme action (above three enzymes)	
1. Acetylcholine esterase	page 436
2. M.A.O.'s	page 425
3. C.O.M.T.'s	page 425
14. List the steps and importance of each step involved during the excitation, inhibition and/or neurohumoral transmission by Ach.	Lecture Goodman & Gilman's Text, page 414, Figure 21-3
15. Indicate the role of gamma amino-butyric acid (GABA) and glycine in the central nervous system.	Lecture Goodman & Gilman's Text, page 431
16. Differentiate between cholinergic muscarinic and nicotinic responses.	Goodman & Gilman's Text, page 436
17. List the muscurinic responses of acetylcholine blocked by Atropine.	Lecture Goodman & Gilman's Text, page 437
18. Discuss the concept of "false neurotransmitters" and name at least five.	Lecture Goodman & Gilman's Text, page 425
19. Name the natural neurotransmitters and specific drugs that induce an action potential at postganglionic sympathetic alpha receptors.	
20. Prepare a list of alpha sympathetic effector responses.	Lecture Goodman & Gilman's Text, pages 408-409, 491
21. Differentiate between the physiological responses to the stimulation by Beta One and Beta Two stimulation.	Lecture Goodman & Gilman's Text, page 408-409

CARDIOVASCULAR SYSTEM

Heart:

Trabeculae carnae (all chambers)
Papillary Muscles (both ventricles)
Chordae Tendinae (both ventricles)
Right and Left Atria
Right and Left Ventricles
AV Node (Tawara's Node)
Superior Vena Cava
Inferior Vena Cava
Tricuspid Valve
Pulmonary Semi-lunar Valve
Bundle of His
Right and Left Pulmonary Veins
Bicuspid (Mitral) Valve
Pulmonary Artery
Right and Left Branches of the Pulmonary Artery
Aortic Semi-lunar Valve
Ascending Aorta
Right Coronary Artery
Posterior Descending Branch of the Right Coronary Artery
Left Coronary Artery
Anterior Descending Branch of the Left Coronary Artery
Circulmflex Branch of the Left Coronary Artery
Aortic Arch
Brachiocephalic Trunk
Common Carotid Arteries (right and left)
Subclavian Arteries (right and left)
Vertebral Arteries (right and left)
Brachiocephalic (innominate) Veins
Vertebral Veins (right and left)
Internal Jugular Veins (right and left)
Azygos Vein

Trunk and Lower extremities:

Parts of the Aorta (as before)
Thoracic Aorta
Intercostal Arteries
Celiac Axis
  Hepatic Artery
  Gastric Arteries
  Splenic Artery
Abdominal Aorta
Superior Mesenteric Artery
Inferior Mesenteric Artery
Common Iliac Arteries (right and left)
External Iliac Arteries (right and left)
Internal Iliac Arteries (right and left)
Femoral Artery
Popliteal Artery
Anterior Tibial Artery
Posterior Tibial Artery
Peroneal Artery
Great Saphenous Vein
Peroneal Vein
Anterior Tibial Vein
Posterior Tibial Vein
Lesser Saphenous Vein
Popliteal Vein
Femoral Vein
External Iliac Veins (right and left)
Internal Iliac Veins (right and left)
Common Iliac Veins (right and left)
Inferior Vena Cava
Inferior Mesenteric Vein
Renal Veins (right and left)
Superior Mesenteric Vein

Head and Neck:

Parts of the Aorta (as before)
Brachiocephalic Trunk
Common Carotid Arteries (right and left)
Vertebral Arteries (right and left)
Basilar Artery
External Carotid Arteries
Vertebral Veins (right and left)
Internal Jugular Veins (right and left)
Brachiocephalic (innominate) veins
Superior Vena Cava

Upper Extremities:

Parts of the Aorta (as before)
Subclavian Arteries (right and left)
Axillary Artery
Brachial Artery
Radial Artery
Ulnar Artery
Common Interosseous Artery
Ulnar Vein
Median Antibrachial Vein
Radial Vein
Antecubital Veins (as a group)
Basilic Vein
Cephalic Vein
Brachial Vein
Axillary Vein
Subclavian Veins (right and left)
Brachiocephalic Veins (innominate)
Superior Vena Cava

Add to list:
Portal Vein
Hepatic Vein
Internal Carotid Artery

WLT 1978

5

Human Reproduction and Development

Meiosis and Gametogenesis:

(Refer to your text and other sources in addition to this booklet)

Spermatogonium (Oogonium)
Mitochondria
Golgi Bodies
X-Chromosomes
Primary Spermatocyte (Oocyte)
First Meiotic Division
Secondary Spermatocytes (Oocytes)
Interkinesis
Second Meiotic Division
Spermatids (Ootids)
Spermatozoa (Sperm)
Ovum (Egg)
Polocytes (Polar Bodies)

Sperm:
- Head
  - Acrosome (Hyaluronidase)
  - Nucleus
- Midpiece
  - Mitochondria
- Tail
  - Axial Filament

Ovum:
- Pronucleus
- Cortical Bodies (Cortical Zone)
- Vitelline Membrane
- Zona Pellucida
- Yolk Rich Cytoplasm

Male Reproductive Anatomy:

- Perineum (See References)
- Testis
  - Superior Pole
  - Inferior Pole
- Epididymis
  - Head of Epididymis
  - Body of Epididymis
  - Tail of Epididymis
- Tunica Vaginalis
- Cremaster Muscle
- Scrotum
  - Dartos
  - External Membrane
  - Septum Scrotum
- Spermatic Cord
  - Vas Deferens
  - Pampiniform Plexus
  - Testicular Artery
  - Tunica Vaginalis
- Vas Deferens (Ductus Deferens)
- Ampulla of Vas Deferens
- Seminal Vesicles
- Prostate Gland
  - Ejaculatory Duct
- Urinary Bladder
- Ureters
- Urethra
  - External Urethral Orifice
- Bulbourethral Gland
- Penis
  - Body Penis
  - Dorsal Artery and Vein of Penis
  - Corpus Spongiosum
  - Corpus Cavernosum
  - Prepuce
    - Frenulum of Prepuce
  - Glans Penis
  - External Urethral Orifice
- Inguinal Ligament
- Femoral Canal
- Inguinal Canal
- Superficial Inguinal Ring
- Internal Abdominal Ring
- Urethral Sphincter
- Ischio-cavernosus Muscle
- Bulbo-Cavernosus Muscle
- Inferior Epigastric Artery and Vein
- Internal Pudendal Artery and Vein
- Pudendal Nerve

The Ovary:

Mesovarium
Germinal Epithelium
Peritoneal Epithelium
Tunica Albuginea
Smooth Muscle Cells
Primary Follicle
Secondary Follicle
Atretic Follicle
Cayum Folliculi (Cavity of Follicle
Graafian Follicle

- Corpus Rubrum
- Corona Radiata
- Ovum
- Zona Pellucida
- Theca Folliculi Interna (Vasculosum)
- Theca Folliculi Externa (Fibrosum)
- Corpus Luteum
- Corpus Albicans

Female Reproductive Anatomy:

- Ovary
    - Mesovarium
    - Ovarian Ligament
- Uterine (Fallopian) Tube
    - Mesotubarium
    - Fimbriae
- Uterus
    - Cervix Uteri
    - Os of the Uterus
    - Perimetrium (Tunica Serosa)
    - Myometrium (Tunica Muscularis)
    - Endometrium (Tunica Mucosa)
    - Uterosacral Ligament
    - Broad Ligament
- Vagina
- Perineum (See References)
- Vulva (see references)
    - Labium Majora
    - Labium Minora
    - Clitoris
    - Vestibule of Vagina (see references)
- Ureters
- Urinary Bladder
- Internal Urethral Orifice (see refer.)
- Urethra
- External Urethral Orifice (see refer.)
- Mons Pubis
- Pubic Symphysis
- Sacrum
- Coccyx
- Rectum
- Anus
- Anal Sphincter

The Human Breast:

- Areola
- Nipple (Mammae)
- Lactiferous Ducts
- Ampulla
- Glandular Tissue
- Fatty Tissue
- Retinacula Mammae
- Ligaments of Cooper

Human Development;

- Womb (Uterus)
- Placenta (Afterbirth)
- Umbilical Cord
- Embryo or Fetus
- Amniotic Sac
- Uterine Cavity
- Egg Membranes (Decidua Membrana)
    - Amnion
    - Chorion

Required Film Loops;

Available at the Bio-Chem LRC Desk

ML 120 Menstrual Cycle
ML 121 Sexual Intercourse
ML 122 Fertilization and Early Development
ML 123 Embryo and Fetus
ML 493 Human Birth
ML 124 Care of the Newborn

WLT 1979

BIO 112

CREDIT BY EXAMINATION

PACKET

Biology 112
Course No.

Anatomy and Physiology
Title

____ **of** ____ **units**

4 cr.
Credits

Name of Unit: THE ANATOMY OF THE CARDIO VASCULAR SYSTEM

Unit Objective: To be able to identify in the laboratory on the models or disected specimens the major major arteries , veins and their branches , the parts of the heart . The student will be able to trace a drop of blood to and from any anatomical area in the human body in the correct sequence of passage .

Method Of Evaluation: Laboratory practicle exam and written examination .

Estimated Time To Achieve: 15 hours .

LEARNING OBJECTIVES

The Student will be able to locate and identify the following :

A. ARTERIES :

1. ascending aorta .
2. arch of the aorta.
3. descending aorta.
4. thorasic aorta.
5. abdominal aorta .
6. common carotid artery.
7. external carotid artery.
8. internal carotid artery.
9. subclavian artery.
10. axillary artery.
11. brachial artery .
12. radial artery.
13. ulnar artery .
14. medial or interosseous artery.
15. volar arches .
16. metacarpal arteries .
17. digital arteries.
18. femoral artery.
19. popliteal arteries .
20. peroneal arteries .
21. anterior tibial arteries
22. posterior tibial arteries

RECOMMENDED LEARNING EXPERIENCES

Use the laboratory keys Gray's Anatomy and other referance texts available at the LRC desk .

The Clay Adams model of the heart and circulatory system or the so called "spaghetti " models . The torso models may also be used .

Textbook pages to be refered too pages 470 through476 .

Lecture will also cover these anatomical structures .

Learning Packages are also available

L.P.# Title

The heart & Upper extremity .

Arteries of the thorasic & abdomen.
Arteries of Pelvis & lower extremit
Arteries of the Head & Neck

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
B. VEINS : (deep veins) 1. superior vena cava . 2. inferior vena cava . 3. subclavian vein . 4. axillary vein . 5. brachial vein . 6. radial vein . 7. ulnar vein . 8. portal vein . 9. brachiocephalic vein . 10. external jugular vein . 11. vertebral vein . 12. internal jugular vein . 13. femoral vein . 14. popliteal vein . 15. posterior tibial vein . 16. anterior tibial vein . 17. peroneal vein . 18. hepatic vein . 19. azygous vein . 20. hemizygous vein . 21. renal vein . 22. common iliac vein . 23. internal iliac vein . 24. external iliac vein . 25. inferior phrenic veins .	The L.P. The Veins of the Human Body Lecture , Use the lab models the Clay Adams "Spaghetti" model as well as torso modles . Textbook pages 447 through485 . Laboratory keys .
C.Superficial Veins : 1. cephalic vein . 2. basilic vein . 3. medial cubital veins 4. antebrachial veins. 5. great saphenous veins . 6. lesser saphenous veins	Clay Adams spaghetti models show these veins as well as torso models.
D. Cranial Sinuses: 1. superior sagittal sinus. 2. inferior sagittal sinus. 3. transverse sinus. (petrosal) 4. straigth sinus .	Torso models shoe these vessels inside cranium .

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
D. Cranial Sinuses (cont'd)	
5. sigmoid sinus. 6. confluence of sinuses .	
E. Major Arterial Branches :	
I. Arch of Aorta : 1. common carotid arteries. 2. subclavian arteries. 3. brachiocephalic .	Heart models show these vessels best .
II. Thorasic Aorta : 1. esophageal . 2. pericardial . 3. bronchial . 4. mediastinal . 5. subcostal . 6. superior phrenic . 7. posterior intercostals.	Torso models show these vessels
III. Abdominal aorta : 1. Celiac . 2. superior mesenteric . 3. inferior phrenic . 4. middle suprarenals . 5. renals . 6. testicular or ovarian (gonadal) 7. lumbar arteries. 8. middle sacral . 9. common iliacs .	Model of liver , spleen and pancreas to be studied for these vessels . Stomach model also show these vessels . Kidney & urinary system also of value.
IV. Celiac Branches : 1. Left gastric . 2. Common hepatic . 3. Splenic .	Stomach model & Liver , spleen & pahcreas of value .
V. Common Hepatic branches : 1. gastroduodenal . 2. right hepatic . 3. middle hepatic . 4. left hepatic . 5. right gastric.	
VI. Splenic branches : 1. pancreatic . 2. left gastroepiploic . 3. short gastric . 4. splenic .	
VII. External Carotid Branches: 1. superior thyroid . 2. ascending pharyngeal . 3. lingual	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
VII External Carotid (Cont'd) 4. facial . 5. posterior auricular 6. superficial temporal . 7. occipital . 8. maxillary .	Gray 583 to 594 . The Clay Adams models or spaghetti show these vessels.
VIII. Circle of Willis : (base of brain) 1. anterior cerebral . 2. middle cerebral . 3. posterior cerebral . 4. basilar . 5. anterior communicating . 6. posterior communicating. 7. cerebellar arteries. 8. pontine arteries .	Gray 600 to 603 . Brain models show these vessels.
IX. Superior mesenteric branches : 1. inferior pancreaticoduodenal 2. intestinal . 3. ileocolic . 4. right colic . 5. middle colic .	Gray 639 to 642 . Femal torso model on digestive system contents (stomach & intestine) show these vessels.
X. Inferior Mesenteric Branches : 1. left colic . 2. sigmoid. 3. superior rectal (hemorrhoidal)	Gray 642 to 645 Torso models
XI. Internal iliac or Hypogastric branches: 1. umbilical . 2. inferior vesical . 3. middle rectal . 4. uterine . 5. obturator . 6. internal pudemdal . 7. lateral sacral . 8. gluteal . 9. iliolumbar .	Gray 646 to 655 Femal torso model pelvic region & visceral structures sho these models
XII. Coronary arteries (arteries of heart): 1. right coronary. 2. right dorsal interventricular. 3. right marginal . 4. left coronary . 5. circumflex . 6. ventral or left interventricular.	Gray p575to 579 Heart Models show these vessels .

LEARNING OBJECTIVES

OBJECTIVES FOR THE HEART :

The student will be able to locate on the models or specimen of the heart the following structures or areas :

1. atria .
2. ventricles
3. atrioventricular valves (bicuspid & tricuspid).
4. Semilunar valves (pulmonary & aortic).
5. chordae tendineae .
6. papillary muscles .
7. trabeculae carneae .
8. endocardium .
9. myocardium .
10. epicardium
11. pericardium .
12. atrio-ventricular septum .
13. foramen ovale.
14. coronary sinus .
15. sino atrial node . S-A node
16. atrio-ventro-ventricular node.A-V node
17. Purkinje fibers .
18. bundle of His .
19. intervantricular septum .
20. cornary sulcus .
21. apex of the heart .
22. superior vena cava.
23. inferior vena cava .
24. brachiocephalic veins .
25. subclavian veins .
26. ascending vena cava (inferior vena cava)
27. vertebral vein .
28. external jugular vein .
29. internal jugular vein .
30 arch og aorta .
31. brachiocephalic artery .
32. left common carotid artery.
33. left subclavian artery .

RECOMMENDED LEARNING EXPERIENCES

Textbook pages443 through 450.

L.P. The Heart and upper extremity.

Gray's Anatomy pages 543-563.

Lectures on the heart .

laboratory model keys .

Medical dictionary .

THE CARDIOVASCULAR SYSTEM - Sub topic the blood - Blood cells , immunity and blood clottine .

LEARNING OBJECTIVES	Learning Experience
1. Differentiate between serum and blood plasma .	Lecture, textbook page
2. Indicate what percent of the blood is plasma.	Lecture Text page
3. Define a hematocrit and indicate the role of the hematocrit in blood viscosity and blood flow .	Lecture & text page
4. Histologically list the component parts of a red blood cell .	Lecture and text page
5. Prepare a list of the forms of oxygen/ hemoglobin combination . e.g Hb , HbO_2 , HbO_4, HbO_6, HbO_8 and indicate the % saturation with oxygen in each form . What percent is the blood as	

Course Number Biology 112 Bridge Program for Anatomy and Physiology

Name of the Unit - Basic Principles of the Cardiovascular System

Unit Objective - The Cells of the body function as individual engines or units of structures . In order to function they must be constantly supplied with nutritional materials and oxygen and of course be able to dispose of the by-products of combustion CO_2 , water and heat . Since the body is composed of an estimated75trillion cells fule delivery and waste product removal is no small task and the elaborate system of transportation for delivery and removal of wastes is provided by the cardiovascular system . The blood as a component of this system represents about 7% of the body weight (about 4.5 kg)in and average 70 kg person (5 liters) . The heart basically a couble pump provides the force needed to circulate the blood through the two major circulatory systems -pulmonary circulation - and systemic circulation one minute is the time necessary to make one complete circut . The blood is not uniformly distributed between the pulmonary and systemic circulation at any one time -- 80% of the blood is in the systemic while 20% is in the pulmonary circut . Of the blood in systemic circulation 75 % is in the veins , 15% in the arteries and 10 % in the capillaries . In the pulmonary circut 7% of the blood is in the pulmonary capillaries while 93% is equally divided between the arteries and veins almost equally . In an attempt to make this huge topic meaningful we shall divide this unit into the following sub units :

1. BLOOD - cells and plasma , formation destruction - anemia & polycythemi
2. Blood Pressure and its measurement . Hemostatics and hemodynamics .
3. Thrombo-embolitic states - excessive clotting and excessive bleeding .
4. The heart its physiology and structure . Cardiac cycle etc .
5. White blood cells and the inflammatory process .

Bio 112
Course No.

Anatomy & Physiology
Title
BROOKDALE COMMUNITY COLLEGE
LPN TRANSITION

___ **of** ___ **units**

04
Credits

Name of Unit: RESPIRATORY SYSTEM

Unit Objective: To introduce the student to the anatomy and physiology of the Respiratory System. To further emphasize the clinical aspects of this system.

Method Of Evaluation: Quizes, laboratory practical exam, oral questioning, and a Major Unit Comprehensive Test.

Estimated Time To Achieve: 10 Hours.

LEARNING OBJECTIVES

The student will be able to:

I. List and describe the major functions of the Respiratory system.
  A. Gaseous exchange
    1. Oxygen
    2. Carbon Dioxide
  B. Regulation of Acid-Base balance
    1. Buffering systems
    2. effects on Respiratory and cardiac rates
  C. Regulation of Blood pressure (Angiotensin II)
  D. Regulation of Body Temperature
  E. Role in Hydration Regulation
  F. Speech Resonance and Vocalization

II. Identify and list the major parts of the functional and gross anatomy of the Respiratory System
  A. Upper Respiratory Structures
    1. External nose and nasal passages: (floor, walls, and roof of nasal vault)
    a. Identify and list the following:
      1. Anterior (external) Nares
      2. Vomer
      3. Nasal Vestibule
      4. Maxillary bones
      5. Palatine bones
      6. Nasal bones

RECOMMENDED LEARNING EXPERIENCES

Course Textbook:

Tortora & Anagnostakos; Principles of Anotomy & Physiology, 2nd Ed., Harper & Row, N.Y., 1978.

Recommended Readings:
The student should refer to the Respiratory sections in the following: *
Kapit, W., & Elson; The Anatomy Coloring Book, Canfield Press, N.Y., 1977.

Zuidema, G., Ed.; The John Hopkins Atlas of Human Functional Anatomy, Johns Hopkins University Press, Baltimore, 1977.

The Abbott Laboratories Health Care Series: Fluid and Electrolytes, 1970.

Guyton, A.; Textbook of Medical Physiology, 6th Ed., Saunders Co., Philadelphia, 1980.

Gardner, W., & Osborn; Anatomy of the Human Body, Saunders Co., Philadelphia, 1978.

* These texts are available in the Biology Lab, or from the A&P Instructors:

Text Ref: pp. 507 - 508:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
a. (cont.) (7.)Conchae Cartilages (8.)Ethmoid (9.)Sphenoid (10) Lacrimal	pp. 136 - 138:
(11.)Soft Palate b. Identify and locate the following: (1.)Maxillary Sinuses (2.)Frontal Sinuses (3.)Ethmoid Sinuses (4.)Sphenoid Sinuses	pp. 140 - 147:
2. Internal Air Passages: a. Identify and locate (1.)Conchae or Turbinates a. inferior b. medial c. Superior (2.)Internal(posterior) Nares (3.)Nasopharyngeal area	pp. 509 - 510:
b. Identify the following cells of the upper Respiratory system: (1.)mesothelium (2.)pseudstratified ciliated columnar epithelium (3.)mucous cells (4.)connective and adipose tissue	Refer to the Respiratory Hand-out Packet:
3. Identify and describe the following structures of the neck (Oropharynx & Pharynx) a. major structures of the oropharynx: (1.)soft palate (2.)uvula (3.)fauces & palatine tonsils (4.)eustachian tubes (5.)tongue & lingual tonsils b. major structures of the larynx: (1.)Cartilages (a.)thyroid (b.)crichoid (c.)arytenoids-2 (d.)corniculates-2 (e.)cuneiforms-2 (f.)epiglottis (2.)Muscles of the Larynx (a.)Cricothyroid-2 (b.)Post. Cricoaryteniod (c.)Lat. Cricoarytenoids	pp. 511 - 512

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
(2.) cont. (d.) Transverse arytenoid (e.) oblique arytenoid-2 (f.) thyroarytenoids-2 (3.) Vocal cords of Larynx (a.) tendonous "true" vocal cords (b.) false vocal cords	
B. Lower Respiratory Structures	page 512
1. Identify and describe the majors structures of the thorax and extrapulmonary branches: a. tracheal branches (1.) Tracheal glands (2.) Cellular or tissue layers	Sheet # One:
(3.) Cartilagenous rings b. Bronchi (1.) cells of layers (2.) cartilaginous rings (3.) submucosal layer	Respiratory Handout Packet:
2. Identify and describe the major structures of the interpulmonary branches	pp. 513 - 514:
a. Right Bronchus Branches(primary bronchioli) b. Left Bronchus Branches c. Secondary and Tertiary branches of the bronchioli d. Alveolar antrum e. Respiratory branches (1.) alveolar ducts (2.) alveolar sacs (3.) alveolar cells	Handout Sheet # TWO:
3. Identify the functional respiratory unit of the lungs: a. Alveolar simple squamous cells b. surfactant releasing cells c. Alveolar interstitial fluid d. Alveolar epithelium of capillary bed	pp. 515 - 516:
4. Identify the following functional cells of the respiratory system: a. Mucous cells (goblet) b. Alveolar dust cells (MNP system) c. Basal cells d. Brush cells e. Kulchitsky cells (Argyrophiles)	Handout Packet on the Respiratory system:
C. External Gross Anatomy of the Lungs 1. Borders of the Lung a. Surface Margins	pp. 515 - 516:
(1.) apex (superior) (2.) Base or diaphragmatic (3.) costal (lateral) (4.) medial	pp. 516 - 517:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
(b.) Lobes & Fissures (1.) right (a.) Superior(horizontal fissure at base) (b.) Medial(oblique fissure at base) (c.) Inferior (2.) left (a.)Superior(oblique fissure at base (b.)Inferior	
2. Layers of the Lung (a.) parietal pleura-fibrinous (b.) interpleural space-fluid (c.) visceral pleura-mesothelial 3. Smooth muscle and fibrinous connective tissue	Respiratory packet
III. Physiology of Respiration (three phases of gaseous exchange) A. Define external respiration -the student should be able to trace the passage of air from the anterior nares to the alveolar sac	pp. 516 - 518
1. Identify the muscles of restful inspiration a. Diaphragm b. external intercostals 2. Identify the muscles of forceful inspiration a. sternocleidomastoidius b. scapular elevators & anterior serrati c. scalini d. erectus muscles of the spine 3. Identify the muscles of forceful experation a. abdominalis b. internal intercostals c. posterior, inferior serrati 4. define compliance and the role of surfactant	pp. 521- 522
B. Describe the alveolar and interpleural pressures of inspiration & expiration:	
1. Restful inspiration a. interpleural pressure - (-6mmHg) b. alveolar **pressure** - (-3mmHg) 2. Restful expiration a. interpleural pressure - (+ 3mmHg) b. alveolar pressure - (+ 1mmHg) 3. Forceful inspiration - a. interpleural pressure - (-12mm) b. alveolar pressure - (-6mmHg) 4. Forceful expiration a. interpleural pressure - (+ 6mm) b. alveolar pressure - (+ 3mmHg)	Respiratory packet

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
C. Identify and describe the various volumes and capacities of respiration: 1. tidal volume 2. inspiratory reserve volume 3. expiratory reserve volume 4. residual volume 5. Total lung capacity(tv,irv,erv,rv) 6. Vital capacity (tv,irv,erv) 7. Inspratory capacity(tv,irv) 8. Expiratory volume(tv,erv) 9. Functional Residual Capacity (erv,rv) D. Identify the dead air space volume and explain its significance	pp. 518 - 520:
E. Describe the partial pressures of inspired and expired air 1. Total partial pressure - 760mmHg a. N_2 - 597mm - ATMOSPHERIC b. O_2 - 159mm - ATMOSPHERIC c. CO_2- 0.3mm- ATMOSPHERIC d. H_2O- 3.7mm- ATMOSPHERIC	pp. 519 - 520:
2. Alveolar Inspired Air - pp a. N_2 - 569mm - b. O_2 - 104mm c. CO_2- 40mm d. H_2O- 47mm 3. Alveolar Expired Air a. N_2 - 566mm b. O_2 - 120mm c. CO_2- 27mm d. H_2O- 47mm F. Describe, the following gas laws: 1. Charles Law: $V = C \times T(K^{o})$ 2. Boyles' Law: $V = C/P$ 3. Perfect Gas Law: $PV = nRT$ 4. Henry's Law: $V = P \times$ Sol. Coeff.	pp. 520 - 521:
IV. Vascular Transport of Vital Gases A. Alveolar level-inspiration 1. Oxygen a. within sac - 104mm HG b. incoming blood - 40mm Hg 2. Carbon Dioxide- a. within sac - 40mm Hg b. incoming blood - 47mm Hg B. Alveolar level-expiration 1. Oxygen a. within sac - 40mmHG b. plus dead air-120mmHg c. outgoing blood- 104mm Hg 2. Carbon Dioxide a. within sac - 47mmHg b. outgoing blood-40mmHg C. Role of Hemoglobin-zwitter ion effect 1. Haldane effect a. O_2 pick-up at the lungs and removal at the tissues b. CO_2 removal at the lungs and	pp. 523 - 524:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
b.(cont.) O_2 pick-up c. O_2 removal at tissue level & CO_2 pick-up 2. Bohr Effect a. CO_2 discharge at the lungs & O_2 pick-up b. CO_2 pick-up at the tissues & O_2 discharge D. Tissue level respiration 1. Oxygen a. incoming blood - 95mm Hg b. interstitial fluid - 40mm Hg c. outgoing blood - 40mm Hg d. intracellular - 23mm Hg 2. Carbon Dioxide a. incoming blood - 40mm Hg b. interstitial fluid - 45mm Hg c. outgoing blood- 47mm Hg d. intracellular - 47mm Hg	pp. 524 - 525:
E. Discuss the various forms of the vital gases as their transported in the blood: 1. Oxygen a. Oxyhemoglobin 97% b. dissolved Oxygen 3% 2. Carbon Dioxide a. Carbaminohemoglobin 23% b. dissolved CO_2 7% c. H_2CO_3 1% d. HCO_3^- 69% 3. Role of Carbonic Anhydrase in RBC	pp. 524 - 525:
V. Buffering systems of the Blood: 1. Bicarbonate Buffering System a. Henderson-Hasselbach Equation $pH = pK + \lg \frac{HCO_3^-}{CO_2}$ with the pK for the bicarbonate system @ 6.1: 2. Phosphate Buffering System $pH = 6.8 = \lg \frac{H_2PO_4^-}{PO_4^=}$ 3. Protein buffering system B. Value of the above buffers: a. Bicarbonate = 1 b. Phosphate = .6 c. Protein = 6	page 525: Buffers neutralize strong Acids into weak acids and neutral salts; Buffers neutralize strong bases into water and neutral salts:
VI. Respiratory regulation of Acid-Base Balance:	pp. 525 - 526:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
VI.(cont.)	
1. Describe the change in respiratory rate and Cardiac rate when you are in acidosis	
2. Describe the change in respiratory rate and Cardiac rate when you are in alkelosis	
3. Describe the role of the various buffering systems and how they relate to respiratory acidosis-alkelosis	
4. Describe the role of the Haldane-Bohr effect on respiratory acidosis-alkelosis	
VII. Discuss the oxygen carrying capacity of the blood(CMO):	
1. Hemoglobin in gmsx100 ~~cc~~ ml of blood	
2. Hemoglobin carrying capacity(1.34)	
3. General formula for Oxygen CMO levels: 1.34mlO_2 x gms of Hemo./100mlblood xCMO/100= CMO O_2 carrying capacity	
VIII. Discuss nervous regulation of respiration:	pp. 526 -527:
A. Locate the following centers in the CNS:and describe its function 1. Apneustic center 2. Inspiratory center 3. Expiratory center 4. Pneumotaxic center 5. CO_2 center	Respiratory packet
B. Discuss the role of the chemoreceptors,and stretch receptors	
C. Describe the Hering-Breuer reflex	
D. Discuss the role of the precentral gyrus and cortical override	
IX. Define the following terms:	
A. Vagal Breathing	Respiratory packet
B. Biot's Breathing	
C. Kussmaul Breathing	
D. General terms: 1. Eupnea 2. Tachypnea 3. Bradypnea 4. Hyperpnea 5. Hypopnea 6. Anoxia 7. Hypoxemia 8. Hypercapnia 9. Bronchitis 9. Hypocapnia 10. Breathing Reserve 11. Atelectasis 12. Cyanosis 13. Cheyne-Stokes Breathing 14. Pneumonia 15. Asthma 16. Pulmonary Edema 17. Pulmonary Embolis	Handout Sheet # 3:

BIO-112 Anatomy and Physiology # IV of V [illegible]

Course No. **Title**

BROOKDALE COMMUNITY COLLEGE
LPN TRANSITION

04
Credits

Name of Unit: EXCRETORY SYSTEM:

Unit Objective: TO INTRODUCE THE STUDENT TO THE ANATOMY AND PHYSIOLOGY OF OF THE EXCRETORY SYSTEM. TO FURTHER EMPHASIZE THE CLINICAL ASPECTS OF THIS SYSTEM.

Method Of Evaluation: QUIZES, LABORATORY PRACTICAL EXAM, ORAL QUESTIONING, AND A MAJOR UNIT COMPREHENSIVE TEST.

Estimated Time To Achieve: 8 HOURS.

LEARNING OBJECTIVES

THE STUDENT WILL BE ABLE TO:

I. List and describe the major functions of the Excretory System
   A. Filtering metabolic wastes from the blood
   B. Formation of Urine
   C. Regulation of Blood Pressure
   D. Formation of Erythropoietin Stimulating Factor-RBC formation
   E. Maintain the proper body hydration levels
   F. Maintain proper electrolyte balance
   G. Regulation of Acid-Base balance
   H. Retention of vital organic substrates by the body
   I. Homeostatic effect on its control of blood volume & concentration

II. List and Identify the major parts of the Excretory (Urinary) System
   A. Kidneys (Pair)
   B. Ureters (Pair)
   C. Urinary Bladder
   D. Urethra (the urinary parts of this structure are considered here, reproductive portions in the ♂ are considered with the reproductive system)

III. Identify the location and structure of the Excretory System
   A. Location
      1. Kidneys

RECOMMENDED LEARNING EXPERIENCES

Course Textbook:
Tortora & Anagnostakos; Principles of Anatomy and Physiology, 2nd Ed., Harper & Row, N.Y., 1978.

Recommended Readings:
The student should refer to the Excretory Sections in the following: *

Kapit, W., & Elson; The Anatomy Coloring Book, Canfield Press, N.Y., 1977.

Zuidema, G., Ed.; The Johns Hopkins Atlas of Human Functional Anatomy, Johns Hopkins Press, Baltimore, 1977.

The Abbott Laboratories Health Series: Fluid and Electrolytes, 1970.

Guyton, A.; Textbook of Medical Physiology, 6th Ed., 1980.

Gardner, W., & Osborn; Anatomy of the Human Body, Saunders Publishers, Philadelphia, 1978.

Rubenstein, & Federman, Ed.; Scientific American Medicine, 2 Vol., N.Y., 1981.

*
These texts are available in the Biology Laboratory or from the A & P Instructors:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
a. retroperitoneal location in the abdominal cavity	TEXT REF:
b. lateral to the vertebral column against the psoas muscle	pp. 599 - 600:
c. level T_{12} to L_3 (the right kidney is lower - displaced by the liver	pp. 600 - 601:
2. Ureters a. retroperitoneal portion - proximal to the kidney b. pelvic portion- proximal to the bladder (lower lateral wall) 3. Urinary Bladder a. pelvic area b. posterior to the pubis 4. Urethra a. Male urethra (1.) Internal urethra passes through the prostate (2.) External urethra - membranous b. ♀ Urethra (1.) Urogenital diaphragm (2.) dorsal to the vagina B. Gross Anatomy	pp. 618 - 620:
1. Kidney - external anatomy a. bean-shaped organs with a medially located hilus b. measurements: 11.25mm x 5mm to 7.5mm x 2.5mm c. convex lateral surface d. structures: describe- (1) renal fascia (2) adipose capsule (3) renal capsule (4) adrenal glands on medial dorsal surface	page 600:
2. Internal anatomy (coronal plane) a. Renal cortex (reddish) (1) outer zone (2) juxtaglomerular zone with renal columns	Excretory packet
b. Renal medulla (1) Outer zone -1/3rd (2) Inner zone -2/3rds (3) renal pyramids with papillae c. Renal sinus with renal pelvis (1) Calyces (a) major 2-4 (b) minor 7-13 (2) Internal Capsule leads via ampulla to ureter	pp. 602 - 603, fig. 26-2, & 26- 3:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
B. cont. 2. Ureters 10 inches long a. Ampulla - proximal to the kidney b. layers (1) inner longitudinal and external circular smooth muscle of outer coat (2) mucosa composed of transitional type of stratified epithelium 3. Urinary Bladder a. mucosal lining b. outer muscular layers (detrusor urinae) (1) inner longitudinal (2) middle circular (3) outer longitudinal c. Trigone area - triangular area at lower portion of the bladder which receives the 2 ureters and gives rise to the internal orifice	pp. 618 - 619:
4. Urethra a. mucosal lining with secretory cells b. lamina propria c. Muscle layers (1) internal longitudinal (2) circular muscles (3) external longitudinal d. external advanticia with adipose tissue	pp: 619 - 620:
C. Microscopic structure of the Kidney (nephron) 1.25 million/kidney 1. Tubules of the nephron a. Bowman's Capsule (1) endothelium-monolayer with open pores of 50 - 100nm diameter (2) basement membrane - dialyzing effect of its mucopolysaccharide fibrils (3) Visceral epithelial layer of podocyte cells with pedicels and slit pores b. Proximal ConvolutedTubules epithelium with microvilli c. Henle System (1) descending limb of Henle squamous epithelium (2) Loop of Henle (3) Wider ascending limb with cuboidal and low columnar epithelium d. Distal Convoluted tubule	pp: 600 - 602:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
d. cont. cuboidal epithelium with sparse microvilli	
e. straight or minor collecting tubules: these lead into the major collecting tubules passing through the renal pyramides to the minor calyces via papillar ducts	Excretory Packet:
(1) collecting ducts are composed of cuboidal epithelium (2) papillary ducts are composed of columnar epithelium	pp. 600 - 601:
2. Blood Vascular supply of the Kidneys and the Nephron a. Renal Arteries arise from the abdominal aorta (rt. is lower than the left) b. Interlobar Arteries arise just within the hilus c. Arcuate arteries arise at the corticomedullary line d. Interlobular Arteries	pp. 601 - 602:
e. Nephron Unit: (1) afferent arteriole (2) glomerulus - capillary bed - this structure plus Bowman's capsule comprizes the Renal Corpuscle	page 602:
(3) Efferent Arteriole - narrow lumen (4) Peritubular capillaries (5) Vasa Recta medullary branches of the Henle system (6) Efferent venules f. Interlobular veins g. Arcuate veins h. Interlobar veins i. Renal veins leading to the Inferior Vena Cava	The Student will note that this arrangement of arterioles on both sides of a capillary bed is a major factor in nephron physiology
j. Special Vascular Systems (1) Trueta Shunts (2) Juxtaglomerular Apparatus (a) macula densa cells (b) juxtaglomerular cell 3. Nervous supply arises from the Renal plexus a. sympathetic branches b. parasympathetic branches	page 603:
IV. Physiology of Urine formation A. Identify the following phases of Urine formation: 1. Filtration 2. Absorption	pp. 603 - 608:

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
A. cont. 3. secretion B. Homeostatic role of Urine formation 1. Hormones 2. Autonomic Nervous control C. Describe the Renal Fraction of the body's CMO D. Level of Function 1. Nephron Pressure Gradient	
a. Blood vascular portion (1) Afferent Arteriole 100mm Hg (2) Glomerulus 60mm Hg (3) Efferent Arteriole 18mm Hg (4) Peritubular Capillaries 13mm Hg (5) Efferent Venule 10mm g b. Tubular portion (1) Intrarenal Pressure 12mm Hg (2) Proximal Convoluted tubule- 18mm Hg (3) Peritubular Interstitial fluid pressure 6mm Hg	Handout Sheet # One:
2. Renal Corpuscle and Glomerular Filtration Rate a. Glomerular Blood Hydrostatic pressure (1) Major pressure driving filtrate(plasma - protein) from the glomerulus into Bowman's Capsule (2) Mean average pressure of ~75mm Hg	pp. 603 - 605:
b. Blood Osmotic Pressure (1) Opposes above pressure due to osmotic drag of whole blood within the glomerulus (2) Mean Average Pressure of ~30mm Hg	pp. 606 - 608:
c. The Capsular Hydrostatic Pressure (1) Opposes the GBHP due to resistance of capsular walls and fluid already within the capsule (2) Mean average Pressure of ~20mm Hg d. Additional factors effecting P_{eff}	One can calculate the Glomerular filtration rate(GFR) by using the following formula: $GFR = P_{eff}/min.$ P_{eff} = Effective filtration pressure $P_{eff} = GBHP - CHP + BOP$ $= 75mm - 30mm - 20mm$ $= \sim 25mm\ Hg$

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
d. cont.	
(1) Arterial Blood Pressure effect on renal fraction of blood flow	The GFR is about 125ml of glomerular filtrate/minute
(2) Certain diseases - eg. glomerulonephritis	The renal fraction of the CMO in the average male is 1200ml per minute or almost 1/4th
(3) Sympathetic effect on Afferent and Efferent Arterioles	
3. Tubular Reabsorption and Secretion	pp. 608 - 610:
a. Proximal Convoluted Tubule	
(1) Obligatory water Reabsorption due to Na ion pump 65% of water in glomerular filtrate is reabsorbed	
(2) Vital organic substrates almost totally adsorbed here	Vital substances are: glucose, amino acids, acetoacetate ions vitamins and proteins. All but the proteins are absorbed via active transport. The proteins cross the proximal tubules via pinocytosis
(3) Various Ions - the student should be able to list the major ions which are absorbed by the PCT and secreted at that point.	
b. Henle system	
(1) counter-current effect with the Vasa Recta	pp. 611 -612:
(2) describe the formation of dilute or concentrated urine	
(3) describe the renal fraction at the Henle loops	
c. Distal Convoluted Tubles	
(1) Facultative Water reabsorption	
(2) Hormone Effects	
(a) ADH	
(b) Juxtaglomerular apparatus - Angiotensin - Aldosterone	pp. 607 - 608:
(c) list and discuss the different ions which are slectively secreted and readsorbed along the system	
4. Trace the path of urine from its inception within the nephron to its discharge from the Urethra	pp. 608 - 611:
5. Describe the role of PAH, Creatinine, and Inulin in kidney function tests	

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
V. Describe the role which excretory system plays in electrolyte balance A. define and list the major constituents of the three fluid compartments of the body 1. intracellular 2. interstitial 3. blood vascular B. describe the homeostatic mechanisms which allow for proper compartment hydration	pp. 616 - 618:
VI. Describe the role which the excretory system plays in regulation of metabolic acidosis/alkelosis A. pH regulation by the kidneys 1. tubular secretion of H ion a. role of carbonic anhydrase b. secretion of H ion c. absorption of HCO_3 ion d. role of Na ions e. H ion regulation by CO_2 levels in extracellular fluid	pp. 611 - 613:
2. tubular secretion of HCO_3^- from the extracellular fluids a. excretion of excess HCO_3^- from extracellular fluids b. role of Na and other pos. ions c. Isohydric effect on the chemical buffers of the body B. renal regulation of various electrolytes 1. Na ion 2. K ion 3. Mg ion 4. Ca ion 5. Ammonium ion 6. Cl ion 7. OH ion C. Final pH range of urine VII. Define or describe the following terms 1. nephron 2. renal suppression 3. buffer 4. diuresis 5. albuminuria 6. glycosuria 7. hematuria 8. dehydration 9. pyelonephritis 10. incontinence 11. pyruia 12. ketosis 13. casts 14. calculi 15. micturation 16. retention 17. pyelitis 18. cystitis 19. electrolyte	pp. 612 - 615:

BROOKDALE COMMUNITY COLLEGE
LPN TRANSITION

BIO 112
COURSE NO.

ANATOMY & PHYSIOLOGY II
COURSE TITLE

1 of ___ UNITS

4
CREDITS

NAME OF UNIT: The Endocrine System

UNIT OBJECTIVE: To understand the essential anatomy and physiology of the endocrine system. The student must also be thoroughly knowledgable regarding the essential and controlling effects the Endocrine system has on all the other systems. The student must be familiar with how the Endocrine and nervous system function jointly to integrate the biochemistry and physiology in the living organism.

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
BE ABLE TO	
1. Distinguish between a Endocrine and Exocrine gland, also, name and locate three examples of each.	Principles of A&P-Tortora-2nd Chapter 2 page 81-88 Chapter 18 page 394-395
2. State the name of an endocrine gland secretion and describe how it functions	Chapter 18 page 394
3. Differentiate between and give some examples of the three classes of hormones, polypetide hormones, modified amino acid hormones and steriod hormones	Chapter 18 page 394 Lecture
4. Describe the role of cyclic A.M.P. in hormone reactions at the cellular level.	Chapter 18 page 394-396 page 395 fig. 18-2 Lecture
5. Indicate the role of prostaglandins related to cyclic A.M.P. and hormonal action	Chapter 2 page 44 and page 48 Chapter 18 page 394 and lecture
6. Describe the following two methods by which hormonal output is regulated a. Negative feedback concept b. Use of releasing hormones and release inhibiting hormones.	Lecture Chapter page 398 - Fig. 18.4 page 403 - Fig. 18.8 page 404 - Fig. 18.9 page 408 - Fig. 18.13 Fig. 18.14 page 411 - Fig. 18.17 page 413 - Fig. 18.19 Reading page 396-399

LEARNING OBJECTIVES	RECOMMENDED LEARNING Experiences
7. Describe the anatomical and physiological relationship between the pituitary gland and the hypothalamus (emphasis on the following) a. Their respective embryology and histology b. The physiological mechanism which unites them.	Chapter 18 - page 396-400 Lecture - Lab models - Lecture - Lecture
8. Locate the adenohypophysis (anterior pituitary)	- Lab models Chapter 18 - page 397 and 400
9. List the seven hormones synthesised by the cell of the adenohypophysis and their target organs, and function.	Chapter 18 - pages 396-399 Lecture
10. Describe the turn-on and turn-off mechanisms which regulate the hormones secreted by the adenohypophysis	Chapter 18 - pages 396-399 Lecture
11. Identify those disorders resulting from either a hyper or hypo secretion of the adenohypophyseal hormones.	Lecture Chapter 18 - pages 394-418
12. Locate the neurohypophysis (posterior pituitary)	Lab models Chapter 18 - page 397 and 400
13. Define the source of hormones stored by the neurohypophysis, their target organs and function.	Lecture Chapter 18 - page 399-400
14. Discuss how the hormones synthesised in the hypothalmus reach the neurohypophysis	Lecture Chapter 18 page 399
15. Describe the turn-on turn-off mechanism for the neurohypophysis's hormones	Lecture Chapter 18 - page 399-400
16. Identify those disorders resulting from either a hyper or hypo secretion of the neurohypophysis hormones.	Lecture Chapter 18
17. Locate the thyroid gland.	Lab models Text chapter 18 - page 401
18. Identify the following parts of the thyroid gland: Right Lobe, left Lobe, isthmus and pyramidal lobe.	
19. List the hormones synthesised in the thyroid gland and identify the cell which carry out their synthesis	Page 401
20. Discuss how thyroxin is synthesised and stored by thyroid follicles and transported.	Lecture Page 401-404

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
21. Describe the regulation mechanisms which turn on and turn off thyroxin thyrocalcitonin production and flow	Lecture Page 401
22. Identify the physiological effects and targets of thyroxin and thyrocalcitonin	Page 401-404 Lecture
23. Describe the disorders resulting from hyper and hypo secretions of the thyroid gland hormones.	Page 401-404 Page 415-416
24. Locate the parathyroid glands and state their specific name and number.	Page 405 Lab models Lecture
25. Distinguish between the role of the following parathyroid cells, principal or chief cells, and oxyphil cells	Page 404
26. Describe the physiological effects of normal and abnormal secretion of the parathyroid hormone on calcium metabolism and absorption.	
27. Identify the relationship of Vitamin D, phosphorus osteoclasts thyrocalcitonin and Kidney function to P.T.H.	Page 404 Lecture
28. State whether the P.T.H. control mechanisms are negative or positive feedback and explain	Page 404 Lecture
29. Describe the disorders resulting from hyper or/and hypo R.T.H secretions	Page 416 Lecture
30. Locate the adrenal glands, (Suprarenal glands) and the two sections of the adrenal gland 1. adrenal cortex 2. adrenal medulla and capsule	Lab Page 405-406
31. Locate the three zones of the adrenal cortex 1. Zona glomerulosa 2. Zona Lasciculala 3. Zona reticularis	
32. List the three major groups of hormones secreted by the three zones of the adrenal cortex	Page 407 Page 408
33. Identify the specific hormones classified in the following groups: a. Mineral corticoids b. Glucocorticoids c. Gondocorticoids	Lecture Page 407 Page 408 Page 409

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
34. Describe the mechanisms which turn on and turn off (feedback mechanisms) the following hormones and describe the hormones function/action. aldosterone & Desoxy corticosterone; cortisone, (Hydrocortisone) cortisol, & corticosterone; estrogens & androgens	Page 407 Page 409
35. Identify the hormonal secretions of the adrenal medullary. Describe the physiological effects of the hormones of the adrenal medulla.	Page 409 Lecture
36. Describe how the adrenal medullary hormonal secretions are controlled.	Lecture Page 409
37. Describe the relationship between the adrenal medulla hormones and the sympathetic nervous system (a division of the autonomic nervous system.)	Page 409 Lecture
38. Identify the disorders resulting from either hypo or hyper secretions of each of the adrenal cortex and adrenal medullary hormones.	Lecture Page 416
39. Locate the Pancreas	Lab Text Pages 409-410
40. Relate the reasons why the Pancreas is labeled as both a endocrine and exocrine gland.	Lecture Text pages 83-84 Pages 409 Page 410 Page 566
41. Describe the function of islet of Langerhans and the two kinds of cells it contains, alpha cells and Beta cells	Lecture Page 409
42. Compare the specific roles of the hormone glucagon and insulin in the control of blood sugar and liver function.	Page 409 Page 410
43. Describe the mechanisms which regulate insulin secretion.	Lecture Page 410
44. Identify the consequences of either a hypo or hyper insulin production	Lecture Page 411 Page 416

LEARNING OBJECTIVES	RECOMMENDED LEARNING EXPERIENCES
45. Locate the Pineal gland - (Pineal body) and name the hormones secreted.	Lab Page 411 Page 395
46. Describe the physiological effects of the hormones secreted by the pineal gland and its action as a neurpendoerine transducer	Lecture Page 411
47. Locate the Thymus gland.	Lab Page 395 and 411
48. Define the role of the Thymus gland in antibody production	Lecture Page 411
49. Describe the condition of the Thymus gland in infants and also adults	Page 411 Lecture
50. Defind the general adaptation syndrome and compare horneostatic responses and stress responses.	Page 412-413
51. Identify the body reactions during the alarm, resistance and exhaustion stages of stress	Pages 412-413-414 Page 413 Fig. 18-19

Below is a list of hormones not specifically covered in this unit as they will be covered in greater detail with other systems; student should be very familiar with their site of origin and function.

1. Active Vitamin D_3 (K)
2. Angiotensin (Blood Protein)
3. Demobilizer for Melanocyte-stimulating hormone (hypo)
4. Entcrocrinin (SI duodenalmucosal)
5. Enterogastrone (SI)
6. Erythropoietin (K)
7. Estrogens -----P. 652
8. Gastrin (S) paintqoripin effect
9. (Chorionic Gonadotropin) Panerase
   Human chorionic gonadotropin-developing placenta - page 655 G.B.
10. (Cholerystokinin)
    (Pancreozynim) - (SI)
11. Progesterone - p. 652
12. Secretion (SI)
13. Testosterone p. 641

BROOKDALE COMMUNITY COLLEGE
LPN TRANSITION
ANATOMY & PHYSIOLOGY II

BIO 112
COURSE NO.

4
CREDITS

NAME OF UNIT: The Endocrine System

Terms related to the Endocrine System-Look up

A.

Acidophyils
Acidosis
Acromegaly
Active Vitamin D_3
Addisons disease
Adenohypophysis
Adehoma
Adenosine diphosphate (A.D.P.)
Adenosine triphosphate (A.T.P.)
Adenyl cyclase
Adrenal cortex
Adrenal gland
Adrenaline (Epinephrine)
Adrenal medulla
Adrenocortico tropic hormone (ACTH)
Adrenocortico tropic hormone releasing factor (ACTHRF)
Adrenogenital syndrome
Adrenoglomerulotropin
Alarm reaction
Aldosterone
Aldosteronism
Ammino Acids
Anabolism
Androgens
Angiotensin
Angiotensin I
Angiotensin II
Anterior, hypophyseal veins
Antibodies
Antidiuretic
Atrophy

B

Basal metobolic rate (BMR)
Basophil
Benign tumor

C

Calcitonin
Calcium
Calorigenic effect
Cancerous tumor
Capsule
Catabolism
Cataracts
Cholecystokinin
Chorionic gonadtropin (human)
Chromoffin cells
Chromophobs
Chusings disease (syndrome)
Chvostek syndrome
Collagen
Coma
C-Phosphodiesterase
Corticoid
Corticosterone
Cortisone
Cortisol
Cretinism
Cyclic A.M.P.

D

Demobilizer for melanocyte stimulating hormone
Diabetes insipidus
Diabetes mellitus
Diabetogenic effect
Ductless gland

E

Electrolyte
Endemic Goiter
Endocrine gland
Enterocrinin
Enterogastrone
Epinephrine (Adenaline)
Epiphysis,Cerebri
Erythropoietin
Esophagus
Estrogen
Exocrine gland
Exopthalmic goiter
Exopthalmos

F

Feedback
Feminizing odenoma
Fibrous capsule
"Fight or Flight" Response
Follicle stimulating Hormone (FSH)
Follicle stimulating Hormone releasing factor (FSHRF)

G

Gastrin
General Adaptation Syndrome
Giantism
Glial Cells
Glucose
Glucagon
Gluconeogenesis
Glucocorticoids
Glucose Tolerance Test
Goiter
Gonadocorticoids
Gonadatropic Hormone
Glycogen
Glycogenolysis
Glycosuria

H

Hepatitis
Homeostasis
Hormone
Human growth hormone (Somatotroph) HGH
Human growth hormone inhibiting factor (Somatostatin) (HGHIF)
Human growth hormone releasing factor (HGHRF)
Hydrocortisone
Hyperglycemia
Hyperplasia
Hyperthyroidism
Hypertrophy
Hypoglycemia
Hypoparathyroidism
Hypophyseal portal vein
Hypophyseal stalk
Hypophysectomy
Hypophysis
Hypoplasia
Hypothalmic nuclei
Hypothalmus
Hypothyroridism

I

Inferior hypophyseal artery
Infundibulum
Inhibiting releasing hormone (factor) IRH or IRF
Iodine
Ions
Islets of Langerhans
Insulin
Insulin shock
Interstitial cell stimulating hormone (ICSH)

J

Juxtaglomeruler cells (apparatus)

K

Ketones
Ketonemia
Ketoneuria
Ketosis
Kidneys
Kidney failure
Kidney stones

L

Lactation
Lactogenic hormone
Larynx
Left inferior parathyroid gland
Left superior parathyroid gland
Libido
Luteotropic releasing factor (LRF)
Luteotropin
Luteinizing hormone (LH)
Lymphatic system
Lymphocytes

M

Maligment tumor
Medulla (adrenal medulla)
Melanin
Melanocyte
Melanocyte-stimulating hormone (MSH)
Melanocyte-stimulating hormone releasing factor (MSHRF)
Melanocyte-stimulating hormone inhibiting factor (MSHIF)
Melatonin
Menarche
Menopause
Mineralocorticoids
Myhedema

N

Negative feedback
Neuroblastoma
Neuroendocrine transducer
Neuratransmitters
Norepinephrine (Noradrenilin)

O

Osteitis fibrosa cystica
Osteomalacia
Osteoporosis
Oxidation
Oxytocin

P

Pancreozymin (cholecystokinin)
Parafollicular cells
Panhypopituitarism
Paraventricular nuclei
Pia mater
Pineal gland (Pineal body)
Pituicytes
Pituitary cochexia (simonds disease)
Pituitary dwarfism
Plexus of infundibular process
Polypetides
Polyuria
Positive feedback
Posterior hypophyseal vein
Primary plexus (area in infundibulum)
Progesterone
Prolactin (PR)
Prolactin inhibiting factor (PIF)
Prolactin releasing factor (PRF)
Prostoglandins
P.B.I. (Protein bound iodine test)
Puberty
Pyramidal lobe (Inthyroid gland)

R

Releasing hormone (releasing factors)
Renin
Renin - Angiotensin pathway
Rickets
Right inferior parathyroid gland
Right superior parathyroid gland

S

Secondary plexus (in Infundibulun)
Secretin
Sella turcica
Serotonin
Sexual precocity
Simond disease (pituitary cachexia)
Somatotropic hormone (SH)
Somatotropin
Sphenoid bone
Steroids
Superior hypophyseal artery
Supra-optico-hypophyseal tract
Suproptic nuclei
Suprarenals
Sympathomimetric

T

Target cells (target organ)
T-cells
Testosterone
Tetany
Thymus gland
Thymus dependent cells
Thyrocalcitonin (T.C.T.)
Thyroid-bending globulins (T.B.G.)
Thyroid colloid
Thyroid follicles
Thyroid gland
Thyroglobulins
Thyrotropin (T.S.H)
Thyrotropin-releasing factor (TRF)
Thyroxin
Thyroxin-Thyroglobulin
Trachea
Tropic hormones
Trousseau signs
Tubero-hypophyseal tract
Tyrosin

V

Virilism
Virilizing ademona
Visceral

Z

Zona fasciculata
Zona glomerulosa
Zona reticularis

APPENDIX C

ADVANCED PLACEMENT

The Advanced Placement opportunity facilitates career mobility for Licensed Practical Nurses, and others with varying nursing education backgrounds, who desire to become Registered Nurses. It provides the educational opportunity to bridge the gap between LPN and RN levels of practice, without having to repeat all prior learning, and offers an alternative to the career mobility possibilities now available in our area.

Each applicant's credentials will be evaluated.

Depending upon prior nursing education, and success in earning credit by examination, two different levels of Advanced Placement are possible:

1) into NUR 122
2) into NUR 223

ADMISSIONS PROCESS

The objective of the Admissions Process is to select the best qualified students. Applicants for Advanced Placement must meet the same requirements as regular applicants.

STAGE I:

- file an application and an Allied Health Request Form in the Admissions Office.
- submit a transcript showing you have a high school diploma or G.E.D. and have successfully completed one year of high school Algebra, Biology and Chemistry. (or college equivalent)
- pass the N.J. Basic Skills Test

STAGE II:

- take the Psychological Corporation Aptitude Test for Allied Health
- submit two references

STAGE III:
(if all preceding are acceptable)

- be interviewed

Applicants not meeting any of the above requirements will be counseled as to the next appropriate action.

RECOMMENDED COURSE SEQUENCE

General Education Courses can be taken before starting the program or in this recommended sequence:

WINTER SEMESTER (15 weeks)

Psych. 106 - 3 credits
Soc. 101 - 3 credits
Eng. 125 - 3 credits

SPRING SEMESTER (6 weeks)

Advanced Placement Seminar I for NUR 121
Advanced Placement Seminar II for NUR 12
Advanced Placement Seminar for BIO 111 *
Advanced Placement Seminar for BIO 112 *

Nursing Transition Course 1 credit

SUMMER SEMESTER (15 weeks)

Psych. 206 - 3 credits
Elective - 3 credits

FALL SEMESTER (15 weeks)

NUR 223 - 9 credits
BIO 213 - 4 credits

WINTER SEMESTER (15 weeks)

NUR 224 - 9 credits
NUR 225 - 2 credits
Elective - 2 credits

Some students may be placed in NUR 223 in the Winter Semester.

* not required if credits have already been earned.

GENERAL INFORMATION

Selected students will register for credit by examination for NUR 121, NUR 122, BIO 111 and BIO 112, and for the one credit Nursing Transition Course.

Accepted students may prepare independently to challenge these courses or may enroll in Advanced Placement Seminars offered to assist them to prepare for the written and practical examinations. These Seminars are only o offered in the Spring Semester and include classroom, lab and clinical experiences.

The Nursing Transition Course focuses on the role change from LPN to RN students completing their first year. Emphasis is on adjusting to the level of practice expected of Registered Nurses, refinement of usage of the nursing process and improved application of safety and communication skills.

All graduates of the total program are eligible to take the State Board Licensing Examination for Registered Nurses.

Application deadline is October 30 of the preceding year. Candidates will be selected and informed prior to the start of the Winter Semester so they may enroll in courses for that term.

Refer to the Brookdale Catalog for more information on the College, Course Descriptions or Nursing Program Policies.

For additional information contact the Admissions Office Ext. 370 or the Allied Health Department Ext. 416 or 417.

Funding was received through
P.L. 94482, Subpart 3 through the
N.J. Department of Education
Division of Vocational Education
and Career Preparation

BROOKDALE COMMUNITY COLLEGE
NEWMAN SPRINGS ROAD
LINCROFT, NEW JERSEY 07738
(201) 842-1900

ADVANCED PLACEMENT

LEADING TO THE

ASSOCIATE OF APPLIED SCIENCE DEGREE

IN

NURSING